

chapter **5**





THE ScAR MODEL

Actions for sharing

Communicate and spread knowledge

As part of the ScAR project, spreading knowledge played an important position from the very beginning and became an integral part of the process. The communication effort, which started during the first semester and was gradually intensified, also involved the partners and the students themselves.

Due to its multidisciplinary and cross-disciplinary nature, the project involves different areas of culture and society, from education, city administration, cultural and conservation institutions, to organisations dealing with civic participation and education for children and young people. As a result, the types of communicative action, contents, contexts and actors have been diversified in order to intercept different audiences. This also made it possible to collect articulate feedback on the progress of the project. The knowledge sharing events also represented important opportunities for the team to compare and review reactions, becoming not only occasions to present the project, but also occasions to discuss its methodologies and results with various stakeholders. There are three main contexts for these events: schools, scientific conferences and civic debates. The web portal and common communication channels via social media (Facebook, YouTube, Instagram) ensured timely and extended activities in progress.¹ The dissemination events also offered

1. In addition to providing basic information support, the portal, thanks to the activation of a “social media wall”, ensured dynamic and diversified communication for the project, even in the absence of dedicated staff. The content posted or shared by the team on the ScAR accounts, automatically delivered to the portal, enabled participants and visitors, even when not present or not



A moment of the award ceremony during the “ScAR al Poli” event.

significant opportunities to discuss the project methodologies and the results with stakeholders, offering to the research valuable opportunities for comparison and reading of reactions. There are three main contexts for these events: schools, scientific conferences and the public debate.

active on social media (because they were not interested in the medium, or, for example, because they were too young like many of the participating students) to access in-progress updates on activities, insights recommended by the team, content posted by teachers and older students on their profiles and shared through the project account, comments from participants and external stakeholders. Presentations and videos, also made in cooperation with partners, were also shared online to describe the project and, particular in the initial phase, to involve teachers. Lastly, radio and television interviews were useful in reaching audiences outside the process, as were the numerous Facebook live broadcasts of the events, which made it possible to increase the accessibility of the activities, expand the audience and build a digital archive of the communications, which could also be used at a later date (see the web page www.scar.polimi.it).

Schools as stakeholders in sharing: events

The events organised in the schools, which were also open to the public, were mainly aimed at publicising the project, the activities carried out and the products produced, to students and teachers not directly involved, to principals, families and the community. These initiatives are often the result of interaction between teachers and experts at different stages of the project, as part of co-participatory planning activities with institutions. This is why events have taken on different characteristics depending on the situation and time. However reflecting on the different experiences afterwards, it is possible to identify some common aspects of particular interest: the active position of the schools, which participated in the organisation of the events and often

Events in collaboration with schools

Vigentour. Il primo geogame sul Vigentino [Vigentour. The first geogame of Vigentino]

Inauguration of the mobile urban geogame for children and families "Vigentour – cerca il tuo futuro nel Vigentino" ["Vigentour – find your future in Vigentino"]. Participants: teachers.

Lower secondary school A. Toscanini in Milano, 25 May 2019.

Seguitemi, prego... [Follow me, please...]

Presentation of the results and activities developed during the alternating school and work programme project. The event was organized by students.

Participants: the school director, the teacher in charge and the research team.

Upper secondary school C. Varalli, Milan, 28 May 2019 (Facebook Live).

ScAR al Poli. Scuole per il paesaggio culturale urbano [ScAR at Poli. Schools for the urban cultural landscape]

Final event to present the activities developed in collaboration with schools and award ceremony at Politecnico di Milano. Participants: Rectorate Delegate to Social Responsibility, Municipio 5 President, the Head of Fondazione Rete Civica Milano and coordinator of Ecomuseo Milano Sud (MUMI), the principal of Istituto Comprensivo Arcadia in Milan and the research team.

Politecnico di Milano, Campus Leonardo, 31 May 2019 (diretta facebook).

Festa delle Scuole del Municipio 5 [The Festival of Schools in Municipio 5]

ScAR workshops at Cascina Chiesa Rossa Park in Milan to test with families the virtual tour of the neighbourhood, sharing memories on the digital map, drawing home-school maps. Organisation by the research team in collaboration with Municipio 5 and Ecomuseo Milano Sud (MUMI).

Parco Chiesa Rossa, Milano, 1 June 2019.

Il progetto ScAR all'Istituto Palmieri [The ScAR Project at Istituto Palmieri]

Presentation event of the activities developed by the students of the school: "Dal mondo allo Stadera: tutti i colori dell'artigianato" (primary school C. Battisti) and "Zona 5.0. La periferia capovolta" (lower secondary school). Participants: the Principal, the teachers, students and the research team.

Primary and lower secondary school Palmieri, Milan, 6 June 2019.

Percorsi virtuali nel paesaggio culturale: la nostra scuola e il territorio [Virtual Tours in the Cultural Landscape: our school and territory]

Presentation event of the works developed by the students from the lower secondary school A. Toscanini. Participants: the Counselor for Education of the Municipality of Milan, the President of Municipio 5, the Principal, the teachers and the students, the partner CEI Group and the research team.

Lower secondary school A. Toscanini, Milan, 21 January 2020.

Presentazione del calendario ScAR-CEI Group 2020 [Presentation of the calendar ScAR-CEI Group 2020]

Presentation of the calendar that collects a selection of the drawings realised by the students of the lower secondary school A. Toscanini part of Istituto Comprensivo F. Filzi in Milan. The calendar was developed during the ScAR project and realised by the school in collaboration with CEI Group, a local energy company. The theme of the drawings was the union between city and nature, an interpretation with a series of metamorphosis between artificial and natural, mineral and organic, city and landscape. The presentation took place during the event "Percorsi virtuali nel paesaggio culturale: la nostra scuola e il territorio" [Virtual Paths in the Cultural Landscape. Our School and Place].

ScAR va in Piemonte [ScAR in Piedmont]

Presentation of ScAR project activities to teachers of upper secondary schools in Piedmont with the aim to replicate and ease the processes.

Upper secondary school Liceo Classico Varallo Sesia, 19 February 2020

Upper secondary school Istituto Tecnico Leardi Casale Monferrato, 21 February 2020.

promoted them, actively led the communication campaign for the event and in some cases managed it themselves; the importance assumed by the students, who were often personally involved in presenting their activities and products, acting in sometimes challenging communicative contexts, in the presence not only of their teachers and principals, but also of their families, the general public and sometimes people outside the school, such as representatives of the academic world and of political, cultural and administrative life; the fact, ultimately, that the school premises were open to curricular and extracurricular activities involving a variety of stakeholders interested in processes that cut across the sphere of education and learning, even if they did not necessarily belong to the school community.

These considerations show how the project enhances the school's potential position as a local hub and as a cultural and civic subject that is active, flexible and open to the external community in promoting and exercising democratic citizenship.

From the school to the international scientific community

In the course of its development and in parallel with its information events in schools, ScAR was presented on several occasions at international seminars and conferences. The reception given to the project in a variety of disciplinary contexts, ranging from education, geomatics, communication and tourism, shows that the issues addressed in the project are topical and relevant to the scientific debate.

The technological element of the project was discussed at conferences dedicated to innovative technologies, in particular in the field of sensory simulation and integration and the acquisition, modelling and interpretation of geo-referenced information in the field of cultural heritage.² The relationship between technology and educational innovation in the context of heritage education was the focus of the speech at an international conference on of technological innovation for education.³ The project was then presented at an Italian conference dedicated to the theme of the global city as a pervasive

2. *Brainstorming BIM, VR, AR, MR, 2019*, Politecnico di Milano, 21 October 2019; *GEORES 2019 International Conference of Geomatics and Restoration*, Politecnico di Milano, 8-10 May 2019.

3. *ED-MEDIA 2019. World Conference on Educational Multimedia, Hypermedia & Telecommunications, International Conference of the Association of Computing in Education (AACE)*, 24-28 June, 2019. Amsterdam.

GEORES 2019. International Conference of Geomatics and Restoration.

Politecnico di Milano, 8-10 May 2019, Milan.

Panel: "Revealing the everyday landscape: innovative systems for heritage education in schools. The ScAR (School Activates Resources) project" (speakers: Nicoletta di Blas and Marco Vedoà).

ED-MEDIA 2019. World Conference on Educational Multimedia, Hypermedia & Telecommunications.

24-28 June, 2019. Amsterdam.

Panel: "Schools as Protagonists in the Valorization and Communication of their Local Cultural Heritage" (speakers: Camilla Casonato and Nicoletta di Blas).

AISU 2019. "The global city. The urban condition as a pervasive phenomenon". IX International Conference of Associazione Italiana di Storia Urbana.

Università di Bologna Alma Mater Studiorum, 11-14 September 2019, Bologna.

Panel: "Memories from the boundaries of the metropolis A participatory project for the enhancement of peripheries cultural heritage with schools" (speakers: Camilla Casonato and Anna Greppi).

ATLAS 2019. Annual Conference of the Association for Tourism Leisure Education and Research on Tourism Transformation.

Universitat de Girona, Facultat de Turisme, 17-20 September 2019, Girona.

Panel: "Enhancing cultural landscape through education. Involving schools in touristic products development to enhance peripheral cultural landscape" (speaker: Marco Vedoà).

IMG 2019 "Graphics/Grafiche". International and Interdisciplinary Conference on Image and Imagination.

Università degli Studi di Sassari, 4-5 July 2019, Alghero.

Presentation of "A scuola di paesaggio. Mappa partecipata del patrimonio culturale di Milano Sud" (speaker: Camilla Casonato).

Brainstorming BIM, VR, AR, MR, 2019.

Politecnico di Milano, 21 October 2019, Milano.

Participation to the Experience Area with a stand to present and test the digital products developed during ScAR.

Stand: "Augmented Reality for promoting the peripheral Cultural Landscape" (Camilla Casonato, Marco Vedoà and Daniele Villa).

XVIII EGA. "The graphic heritage. The graphics of heritage".

Expresión Gráfica Arquitectónica (EGA) International Conference.

Universidad De Zaragoza, 4-6 June 2020, Zaragoza (postponed due to the COVID-19 pandemic and changed into an online conference, 14-18 September 2020).

Panel: "Depicting the urban landscape. Enhancing the cultural heritage of fragile areas with participatory mapping processes" (partecipanti: Camilla Casonato, Anna Greppi e Marco Vedoà).

42nd Conference of Unione Italiana Disegno (UID) 2020. "Drawing for weaving relationships".
Università Mediterranea di Reggio Calabria, Reggio Calabria and Messina, online conference,

18 September 2020.
Panel: "Landscape stories. Visual storytelling on the everyday landscape" (Camilla Casonato and Gloria Cossa).

phenomenon, in the context of a reflection on the relationship between urban peripheries and participation.⁴ The connections with the tourism sector were discussed at a conference on cultural and sustainable tourism, and technological innovation in the context of tourism education.⁵ In all these areas, the theme of the representation of the landscape and cultural heritage has played an important position, as a key element of the project actions and as an area of interdisciplinary discussion. The topic was proposed in specific debates related to the visual studies and the cultural heritage communication in which several aspects of the research were deepened such as, participative mapping, communication of heritage, representation of intangible assets, enhancement of the everyday landscape, the potential of virtual and augmented reality, introduction to the use of ICTs by non-expert users, visual storytelling.⁶

In all the contexts in which it has been presented, the reception towards the research has been positive and encouraging, it has provoked reactions and questions and has given rise to connections, research interactions and cross-publications.⁷ The conferences built a bridge between the experience

4. *AISU 2019, IX International Congress of the Italian Association of Urban History*, Università di Bologna Alma Mater Studiorum, 11-14 September 2019.

5. *ATLAS Annual Conference 2019 of the Association for Tourism Leisure Education and Research on Tourism Transformation*, Universitat de Girona, Facultat de Turisme, 17-20 September 2019.

6. *XVIII EGA Expresión Gráfica Arquitectónica (EGA) International Conference "The graphic heritage. The graphics of heritage"*, Universidad De Zaragoza, 14-18 September 2020; *IMG 2019 "Graphics/Gráficas"*. *International and interdisciplinary conference on images and imagination*, Università degli Studi di Sassari, 4-5 July 2019, Alghero; *42nd Conference of the Unione Italiana Disegno (UID) 2020 "Connect. A design for binding and weaving"*, Università Mediterranea di Reggio Calabria, Reggio Calabria and Messina, 17-19 September 2020.

7. For example, participation in a book on communication technologies for cultural tourism edited by two scholars from the Università della Svizzera Italiana: Casonato C., Di Blas N., 2022. *With new eyes: teaching students to discover their local landscape and communicate it with technologies*. In De Ascaniis S., Cantoni L., (eds.), *Handbook on Heritage, Sustainable Tourism and Digital Media*. Cheltenham Glos (UK), Northampton Massachusetts (USA): Edward Elgar Publishing, pp. 129-141. Another collective publication, coordinated by a lecturer in the Department of Communication Arts and Sciences at Pennsylvania State University, focuses on the impact of educational



A child tests the prototype of the virtual reality tour “Experience Tour del Quartiere Stadera” during “Milano Digital Week 2019”. Photograph by Michele Silva.

carried out with schools and local stakeholders and international and interdisciplinary research on project themes, broadening the reflection and enhancing its value as a methodological proposal. The meetings also served as a vehicle for establishing international research agendas and launching new collaborations and experiments, as discussed below.

innovation on policy and learning and brings together scholars from all over the world, including the Emirate College of Advanced Education, the Chinese University of Hong Kong and the University of Hawai’i at Manoa. In the volume there is a chapter dedicated to ScAR: C. Casonato, N. di Blas, M. Fabbri, L. Ferrari, Little-known Heritage and Digital Storytelling. School as Protagonists in the Rediscovery of the Locality, in E. Taricani (ed.), *Design Thinking and Innovation in Learning*, Bingley, United Kingdom: Emerald Publishing, 2021, pp. 5-25.



Participatory mapping activities on during the event "*Festa delle scuole del Municipio 5*" ["Festival of Municipio 5 Schools"] at Parco Cascina Chiesa Rossa.



A moment of the workshops organized on the occasion of the exhibition dedicated to the ScAR project and inaugurated in conjunction with the "*Festa delle scuole del Municipio 5*" ["Festival of Municipio 5 Schools"] at the Parco Cascina Chiesa Rossa. The game consists of matching pictures of the local landscape with different representations of the same area, panoramas, aerial photographs, and topographical maps.

Events to dialogue with the city and the institutions

ScAR was then presented in various civic contexts that took the project out of its primary spheres, schools and universities, and placed it directly in dialogue with civil society. First and foremost, there were numerous occasions for interaction with the Education Department of Milan Municipality and with the decentralised municipal entities, in particular with Municipio 5, through meetings, institutional meetings and shared participation in events.

Two events in particular are worth mentioning, both promoted by the Municipality of Milan, which have in common the theme of civic participation and the fact that they involve public and private bodies, associations and businesses, addressing a wide and diverse audience of specialists, educators and citizens of different ages. The first of these events took place as part of "Digital Week", an event dedicated to the position that digital technologies can play in driving and

Politecnico di Milano per le periferie. Premiazione Polisocial Award 2017. [Politecnico di Milano for the peripheries. Polisocial Award 2017 Ceremony]

Awards ceremony for the winner projects of Polisocial Awards 2017 dedicated to marginal areas and fragile populations. Participants: the Dean of Politecnico di Milano, the Deputy Mayor, delegates from Fondazione Cariplo, Città Metropolitana di Milano, Fondazione Casa della Carità, the research team and from the other winner projects.
Palazzo Reale, Milan, 17 January 2018.

ScAR Kick-off meeting.

Kick-off meeting to present the research, round tables with partners and desinging sessions with principals and teachers. Participants: the Rectorate Delegate for Welfare, a delegate from the Regional Education Office (Regione Lombardia), the head of Ufficio X Area Territoriale di Milano, the president of Municipio 5, the Counselor fo Education of Municipio 4, a delegate from Fondazione Prada and the research team.
Politecnico di Milano, Campus Leonardo, 8 May 2018 (Facebook Live).

Milano Digital Week. "ScAR. Scuola Attiva Risorse. Percorsi virtuali nel paesaggio culturale". ["ScAR. School Activates Resources. Virtual Tours in the Cultural Landscape"]

Events organised by the Municipality of Milan and the Counselor for Digital Transformation and Civic Services. The event was dedicated to create

throughout digital practices. The research team presented the ScAR project with the participatory mapping of the memories of the Southern peripheries, tested the virtual tour of Stadera Neighbourhood, proposed workshops of mental mapping for children. The event was organized by the research team in collaboration with Ecomuseo Sud Milano (MUMI), Fondazione Rete Civica Milano and Associazione Bei Navigli.

Ex Fornace Gola, sede dell'Ecomuseo Milano Sud (MUMI), Milano. 17 March 2019

Presentation at Municipio 5.

Presentation and public debate on ScAR project at Municipio 5 with the presence of the municipal council and the municipal commission for Welfare, Family and Education. Participants: the President of Municipio 5, Counselor for Education of Municipio 5, the teachers and the research team.
Council Room of Municipio 5, Milano, 14 May 2019.

Monitoring Event of Polisocial Award 2017 Projects "Lavorare sul tema delle periferie: riflessioni, opportunità e prospettive dalle esperienze in corso" ["Working on Peripheries: Reflections, Opportunitie and Perspectives from the Ongoing Experiences].

Collective and transversal debate on marginal areas starting from the research projects of Polisocial 2017. Participants: the project manager Camilla Casonato and two teachers from the pilot schools.
Spazio Off Campus San Siro of Politecnico di Milano, 23 October 2019.

Good Practice Sharing Workshop with the Universidade do Estado de Mato Grosso.

ScAR project presentation and good practice sharing workshop of participatory practices on cultural heritage in fragile areas. Participants: the research team and delegates from Brazil coordinated by prof. Juliana Demartini from Universidade do Estado de Mato Grosso.

Politecnico di Milano, campus Leonardo, 24 October 2019.

Milano Partecipa 2019. “Esplorare i quartieri con i giovani cittadini. Virtual Reality, Gamification, Digital Mapping” [“Exploring the Neighbourhood with Young Citizens. Virtual Reality, Gamification, Digital Mapping”]

Presentation of the research project and the digital products developed followed by a public debate on cultural heritage education practices. The event was promoted by the Municipality of Milan and Fondazione Cariplo with the aim to promote the debate on values, principles and projects able to enhance active citizenship processes.

Visconti Pavillion Teatro alla Scala, Milano. 22 November 2019.

“R.S.V.P. Riapre San Vittore al Pubblico” Exhibition Opening.

Exhibition of the restoration projects for San Vittore e 40 Martiri church developed by Politecnico di Milano students.

Chiesa di San Vittore e 40 Martiri, viale Lucania Milano, 12 October 2019.

supporting processes in areas such as governance, education, and the sustainable economy. For the second edition (2019) ScAR organised an event in collaboration with the Ecomuseo Milano Sud (MUMI) at the museum’s premises on the edge of the project area. In addition to a presentation of the research and activities with schools (then in full swing), shared digital mapping stations of memories and interpretations of the landscape, virtual tours of neighbourhoods for families, and workshops for children on mapping the home-school routes were offered to citizens. The initiative allowed the project to meet a new audience, to spread its message in a different context and to collect contributions from citizens: inhabitants of neighbouring districts, teachers and children from schools not involved in the project, representatives of institutions and associations, and the simply curious. Participation in the “Digital Week” proved to be an interesting opportunity for research, both in terms of expanding knowledge and collecting evidence on the cultural heritage of the area, and in terms of spreading and collecting reactions and reflections on the project.

This last aspect of exchange with subjects and realities active in fields neighbouring the project, took on a central position at the second event, entitled “*Milano Partecipa 2019*”, which was held at a more advanced stage of the project and



The exhibition “R.S.V.P. Riapre San Vittore al Pubblico” inside the disused Church of San Vittore e 40 Martiri in Milan. The event exposed the posters of the students’ projects developed during the course “Architectural Restoration Workshop” of the School of Architecture, Urban Planning and Construction Engineering of the Politecnico di Milano.

allowed for a more mature presentation of the process results. The event promoted by the Municipality of Milan, then in its first edition, was aimed at promoting dialogue on values, principles and projects capable of fostering citizenship and a sense of belonging among citizens. The presentation of ScAR in the Visconti Pavilion of the Teatro alla Scala and the ensuing debate were attended by a wide range of participants: lecturers (also from other cities and provinces), experts in participatory processes, researchers, students, educators and facilitators, people active in the voluntary sector, and city administration officials. The proposal of a project with a strong participatory dimension such as ScAR attracted participants who approached the issues at stake from different points of view. This gave rise to an articulate and highly stimulating debate for the team, also with a view to further developments and the initiation of new interactions.

Exhibitions

Two exhibitions were organised during the course of the project, aimed at different audiences but in both cases set in the local area and aimed not only at communicating the results of ScAR, but also at enriching its actions.

The first exhibition was organised in collaboration with the Municipal Council 5, the libraries and the Ecomuseo Sud Milano (MUMI). The occasion

Exhibitions

“Il progetto Scuola Attiva Risorse (ScAR)” [“The School Activates Resources Project (ScAR)”]

Exhibition of the project and presentation of the results of the research and interactive stands to experiment with the digital tools created with the schools. Exhibition of the products of the activities with the classes and the model of via Montegani, made by the children of the local elementary school. Exhibition curated by Camilla Casonato, Micaela Bordin, Gloria Cossa and Marco Vedoà of the ScAR team, in collaboration with Municipio 5, Ecomuseo Milano Sud (MUMI) and Biblioteca Chiesa Rossa. The exhibition was inaugurated in conjunction with the event “Festa delle Scuole del

Municipio 5” [Festival of Municipio 5 schools] and was then set up at the local library and at the headquarters of Municipio 5. *Parco Chiesa Rossa, Milan, 1-8 June 2019.*

“R.S.V.P. Riapre San Vittore al Pubblico” [“R.S.V.P. San Vittore Reopens to the public”]

Exhibition of the projects developed by the students during the Architecture Restoration Studio of Architecture, Urban Planning and Construction Engineering at Politecnico di Milano. Exhibition curated by Valeria Pracchi (ScAR research team) with Sofia Dordoni and Mattia Marcogliese. Chiesa di San Vittore e 40 Martiri, viale Lucania Milan, 12-19 October 2019.

Publications

Chapters

Casonato C., Di Blas N., Fabbri M., Ferrari F., 2021.

Little-known heritage and digital storytelling. Schools as protagonists in the rediscovery of the locality, in Taricani E. (ed.), *Design Thinking and Innovation in Learning*, Emerald Publishing, Bingley, Regno Unito, 2021, pp. 5-25.

Casonato C., Di Blas N., 2022. With new eyes: teaching students to discover their local landscape and communicate it with technologies. In De Ascaniis S., Cantoni L., (eds.), *Handbook on Heritage, Sustainable Tourism and Digital Media*.

Cheltenham Glos (UK), Northampton Massachusetts (USA): Edward Elgar Publishing, pp. 129-141.

Conference Proceedings

Bonfantini B., Casonato C., Villa D., Di Blas N., Pracchi V., Vedoà M., 2019.

Revealing the Everyday Landscape: Innovative Systems for Heritage Education in Schools. The ScAR (School Activates Resources) Project. In Brumana R., Pracchi V., Rinaudo F., Grimoldi A., Scaioni M., Previtali M., Cantini L. (eds.), *Proceedings of the GEORES (Geomatics and Restoration) conference 2019, Milan, May 8-10, ISPRS International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences, XLII-2/W11*, pp. 255-261.

Bertone G., Bordin M., Casonato C., Di Blas N., Pracchi, V., Vedoà M., 2019. **Schools as Protagonists in the Valorization and Communication of their Local Cultural Heritage**.

In J. Theo Bastiaens (ed.), *Proceedings of EdMedia and Innovate Learning*. Amsterdam: Association for the Advancement of Computing in Education (AACE), pp. 1562-1568.

Casonato C., Cossa G., 2020. **Landscape stories. Visual storytelling on the everyday landscape.** In Arena A., Arena M., Brandolino R.G., Colistra D., Ginex G., Mediati D., Nucifora S., Raffa P. (eds.), *Connettere. Un disegno per annodare e tessere. Atti del 42° Convegno Internazionale dei Docenti delle Discipline della Rappresentazione/Connecting. Drawing for weaving relationships. Proceedings of the 42th International Conference of Representation Disciplines Teachers*. Milano: Franco Angeli, pp. 3025-3042.

Casonato C., Greppi A., Vedoà M., 2020. **Depicting the Urban Landscape. Enhancing the Cultural Heritage of Fragile Areas with Participatory Mapping Processes.** In Agustín-Hernández L., Vallespin Muniesa A., Fernández Morales A. (eds.), *Graphical Heritage. Proceedings of XVIII EGA 2020 International Conference Universidad De Zaragoza. 4-5-6 giugno 2020, Zaragoza (Spain). Vol. 3: Mapping, Cartography and*

Innovation in Education. Cham: Springer Nature, pp. 295-306.

Casonato C., 2020. **Using Graphics to Communicate Intangible. Cultural Heritage: Kids and Teens at Work!** In Cicalò E. (ed.), *Proceedings of the 2nd International and Interdisciplinary Conference on Image and Imagination IMG 2019*. Cham: Springer, pp. 182-194.

Casonato C., Greppi A., 2021. **Memorie dai margini della metropoli. Un progetto partecipativo di valorizzazione del patrimonio culturale delle periferie urbane rivolto alle scuole.** In Pretelli M., Tolic I., Tamborrino R. (eds.), *La città globale. La condizione urbana come fenomeno pervasivo / The Global City. The urban condition as a pervasive phenomenon*. Bologna: AISU International, pp. 602-613.

Participatory Map of the Project

Casonato C., Di Blas N., Bonfantini B., Bordin M., Pracchi V., Villa D., Vedoà M., 2019.

A scuola di Paesaggio. Mappa partecipata del patrimonio culturale di Milano Sud. Milano: Planum Publisher.

was the big school festival, organised by the City Council and strongly attended by families from the neighbouring districts, gathered in a large neighbourhood park (Parco Chiesa Rossa) surrounding a farm complex where the local library involved in the initiative is also located. An exhibition of the works produced during the project was set up in the library, including a large model of a neighbouring street, Via Montegani, made by the children of a primary school.⁸

8. See chapter three.

In the spirit of the project as an open, inclusive and actionable process, the event was enriched by workshops for children and families, where analogue and digital mapping activities and immersive virtual tour experiences in the neighbourhood landscape took place. The drawings, comments and stories of citizens, both young and old, about their everyday landscape were then added to the Atlas of Memories, the digital participatory map produced in collaboration with the MUMI Ecomuseum.

The second exhibition, called “*R.S.V.P. Riapre San Vittore al Pubblico*” [“R.S.V.P. San Vittore Reopens to the Public”] was the outcome of reflection on the possibility of rebirth of a church located in the project area, which had fallen into disuse and is now in a state of serious disrepair. The process, already mentioned, involved students from the Politecnico di Milano engaged in restoration workshops, who then presented their conservation and reuse projects and collected comments and contributions from the inhabitants of the neighbourhood on the prospects for reusing the space and returning it to citizenship.⁹

An ongoing experience

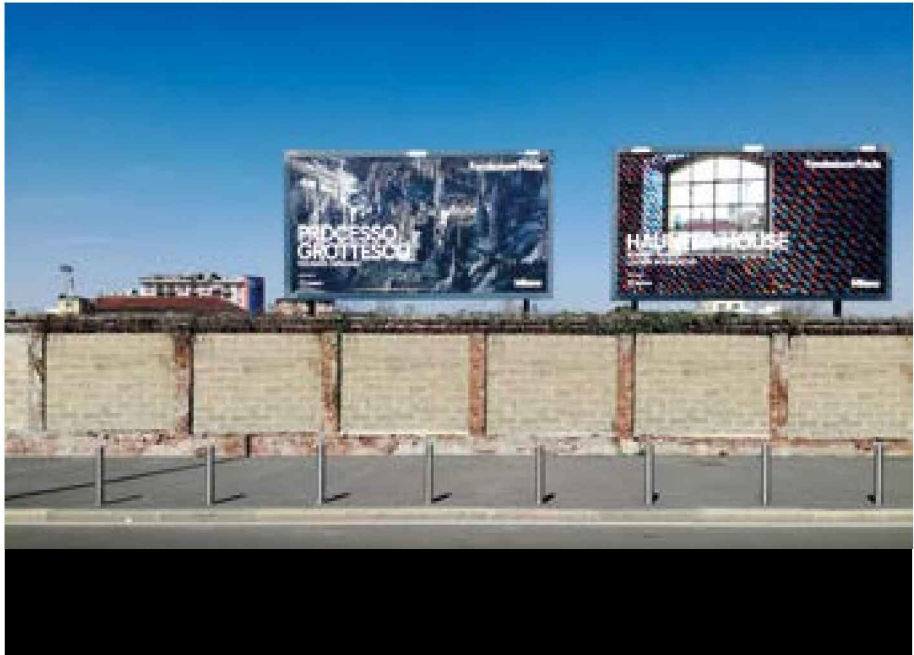
Digital collections, narrations and projects

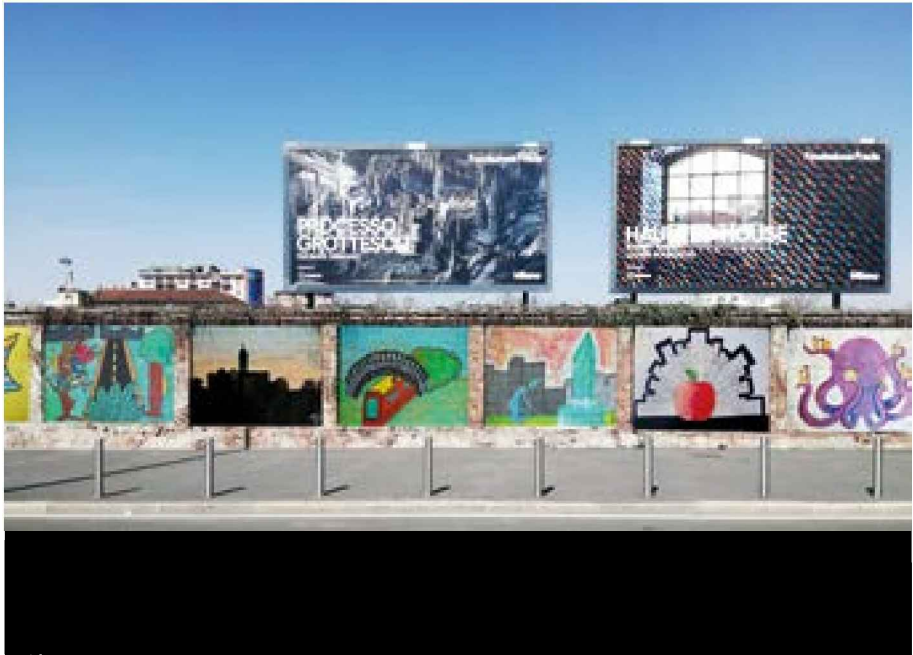
In the course of the activities, encounters with external parties gave rise to new collaborations and initiatives to be pursued beyond the project period.

New digital collections for Ecomuseo Milano Sud (MUMI)

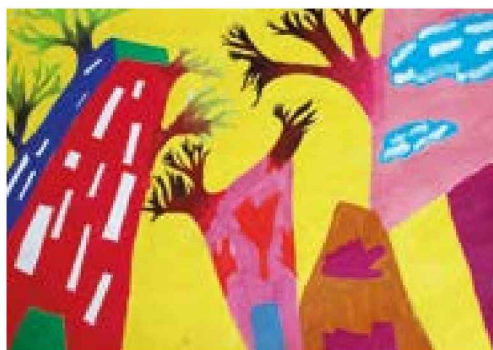
The collaboration with the MUMI Ecomuseo Milano Sud and Fondazione Rete Civica di Milano (FRCM), about which we have already spoken, started the construction of a collective digital atlas to gather memories and interpretations of the urban landscape, the “Atlante digitale delle memorie” [“Digital

9. The students of the Restoration Laboratory at the School of Architecture, Urban Planning and Construction Engineering of the Politecnico di Milano held by lecturers Valeria Pracchi and Luigi Barazzetti.

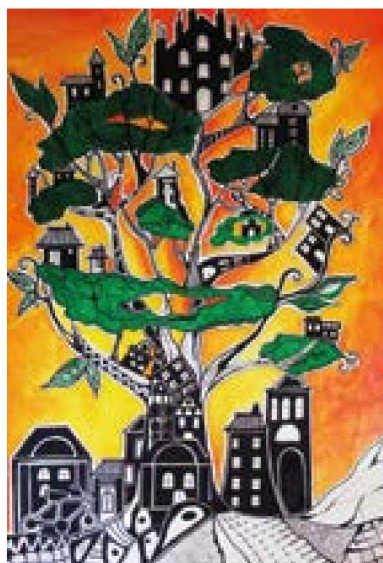




Simulation of the realization of a series of murals on the Scalo di Porta Romana walls. The activity simulated a micro-urban regeneration project elaborated with students' drawings from the local lower secondary school.



Two of the drawings for murals produced by lower secondary school students with the theme of the union between city and nature and the metamorphosis between artificial and natural.



Atlas of Memories”].¹⁰ For the development of the Atlas, the platform already used by the MUMI Ecomuseum to enrich its digital collections through a bottom-up dynamic was adapted to accommodate contributions from students and teachers. Schools thus became the soul of a digital participation project focused on the cultural heritage of the project area. The result is a platform for the collection of geo-referenced multimedia materials: images, documents, research, testimonies linked to the tangible and intangible values that are woven into the peripheral landscape. As materials are uploaded by users, they enrich the digital collections of the community museum and become accessible to all. Thanks to the connection between the media gallery that hosts MUMI’s collections and the Digital Atlas of Memories that collects the results of the activities with the schools of the ScAR project, a participatory mapping project specifically dedicated to schools has come to life, which will remain accessible from the MUMI website and can be implemented even after the end of the project. When ScAR closes, schools will be able to continue their work by uploading materials for new projects, built with new students, while at the same time other schools will be able to join the current partners to enrich and expand the collections.

10. See chapter four.



The research team meets the teachers, principals and local experts of Offanengo (Cremona) at the local primary and lower secondary school, the Istituto Comprensivo Falcone e Borsellino.

One of the most interesting aspects of this project is that the classes did not just collect and provide materials and reflections on heritage, but also shared aspects of process and method. Through the interwoven content of the media gallery, in fact, through the descriptions, comments and multimedia products, users can find the teachers' projects accompanied by stories and reflections and thus discover the many different paths and approaches developed to achieve the same objectives. The platform also tracks contributions according to the submitting institution, class, school order, location in the area and thematic axes. The result is an articulated repertoire of methodological proposals developed and shared by teachers, a result that achieves one of the fundamental objectives of ScAR: the spread of replicable work formats that can be shared, modified and shared again, in the logic of open knowledge.

The “Murales Project”

A direct initiative of one of the partner schools has led to the “Murales Project”, an urban regeneration and awareness-raising action on the themes of ScAR research that brings together schools, universities, institutions and the world of production. The project was initiated by the lower secondary school A. Toscanini

part of the Istituto Comprensivo F. Filzi (primary and lower secondary school) in Milan and involves, in addition to the Politecnico several local actors.¹¹ The plan calls for the creation of a series of murals reproducing the drawings made by the students in the context of a teaching project within ScAR that involved four classes (from age 13 to 14) in the creation of mural projects on the theme of the union between city and nature, interpreted with a series of metamorphoses between artificial and natural, between mineral and organic, between city and landscape.¹² The aim is to change the collective perception of an unqualified space in the southern peripheries of Milan, bringing the citizens' eyes to neglected places that often go unnoticed and starting a reflection on the theme of urban regeneration in the neighbourhoods where students live. The project involved partners in working groups to define logistical and technical solutions and to identify sources of funding. This project marks a significant step, because it shows how ScAR and its methodology can effectively act on the region as activators of latent but potentially dynamic and effective resources. In this case, participation in the project and the support of the university provided an incentive for a school to become the promoter of an action set in the administrative and productive context of the city and aimed at a specific result with repercussions on the physical space of the peripheries. When completed, the Mural Project will allow ScAR to leave a lasting mark on the area and continue to impact on the collective perception of a marginal urban area beyond its completion.

Mapping the Creiasco rural landscape with schools

A partnership with the ScAR team was also initiated by a school for a project to map the rural landscape of Creiasco, with particular attention to historical names. The research, launched in 2017, involves several schools in the area in two different levels (primary and secondary) belonging to the Falcone e Borsellino School in Offanengo (CR). Consistency with the themes of ScAR and the need to acquire new tools, especially in the technological direction, useful both for the project on toponyms and for teaching activities on the theme of the local landscape, led the teachers to participate in the

11. Promoters of the project was the lower secondary school A. Toscanini part of the Istituto Comprensivo F. Filzi (primary and lower secondary school.) The network, beyond Politecnico di Milano, gathered the Municipality 5, A2A, and CEI Group, a private energy company.

12. Reference was made above to the production of a calendar with these same activities, again in cooperation with the partner CEI Group.



Participatory redevelopment intervention as part of the project “*Oficina Comunitária de Arquitetura*” developed in the marginal areas of Barra do Bugres in Brazil by the Faculdade de Arquitetura e Engenharia of the Universidade do Estado de Mato Grosso and in collaboration with ScAR and other international partners.

ScAR training which – designed for partner schools in the Milan area – was then opened up to schools throughout the region. This contact gave rise to exchange best practices between the ScAR team and the Offanengo school working group, which already included, in addition to the principals, local historians, experts from the area, associations for the protection of local historical memory, libraries, teachers from different disciplines, retired teachers, etc. These meetings were also aimed at offering the group coordinated by the Comprehensive Institute advice on mapping production and the digital development of project processes and products with a view to a new phase of systematisation and in-depth research. The interaction with this project enabled ScAR to achieve two objectives. On the one hand, it made it possible to enrich with a solid case study the state of the art and good practices in the field of processes of knowledge and interpretation of the local landscape involving different figures and skills and placing the action of schools at the centre. On the other hand, it has made it possible to verify the exportability of certain methodologies and tools developed within the ScAR experience in a context that is significantly different from that of urban peripheries, but equally marked by territorial fragility.

ScAR in Italian Regions and South America

The connections established between the ScAR team and other working groups, together with the sharing of practices and research methodologies, have made it possible to extend the context of action beyond the project area, touching the entire national territory and even building bridges with distant places.

PoliCultura for ScAR

A further fruitful collaboration was initiated with PoliCultura, an initiative for Italian schools promoted by the aforementioned HOC-LAB research laboratory of the Politecnico di Milano, which is active in the field of communication through technology, in particular in the field of innovative teaching and cultural heritage.¹³ As part of the project, schools of all levels, from pre-school to secondary school, are invited to create interactive multimedia narratives through the contest formula. To do this, the lab provides an authoring tool called “*1001 Storia*”. As mentioned above when talking about teacher training, teachers participating in PoliCultura are offered a MOOC (Massive Online Open Course), a free online training course accompanied by tutoring to help them use the tool effectively in their teaching activities in order to introduce students to digital storytelling. The themes of the narratives are free and, thanks to the partnership with ScAR, a special track dedicated to the themes of the project has been offered from the 2019 edition. Schools were invited to create multimedia stories on the theme of discovering and enhancing the peripheries of cities large and small and, more generally, little-known and little-explored places. Every year PoliCultura reaches more than ten thousand schools with its communication, so ScAR was able to reach schools not directly involved in the project, extending its action throughout the country and finding a remarkable turnout, unusual in the history of the contest for special tracks, which confirms that there is a strong interest in the world of school for the proposed topics. These results led the PoliCultura staff to the decision to permanently include the special track dedicated to ScAR themes in the competition for subsequent years, thus following up the project. The partnership with PoliCultura brought ScAR three interesting opportunities. First of all, it integrated a structured and accessible activity with an ad hoc distance learning course into the proposal for schools. Secondly, it

13. See chapter two.

allowed for a scale-up by taking the proposal out of the project area and taking it on a national scale. Finally, it offered continuity beyond its closing date to a specific branch of the project, integrating the proposal of replication formats.

ScAR goes to Brazil

The project “*Oficina Comunitária de Arquitetura*” (OCA), launched in March 2020, aims to develop interactions between universities and communities, associated with the theme of the city, based on the experiences and methodologies used by ScAR.¹⁴ The project aims to promote reflection on issues related to the city, working on human rights, active citizenship and environmental issues, through a dialogue interaction between university teachers and students, teachers and students from public schools and organisations supporting education. Among the primary aims of this action-research is the promotion of participatory practices in the context of urban planning that is attentive to human rights and sustainable policies. The project aims to involve public schools in raising community awareness of these issues and to engage children and adolescents in the debate and search for solutions. Through the actions with the local community and with the collaboration of local university students, the research also intends to contribute to the identification and sharing of the tangible and intangible cultural heritage of the area. Moreover, it intends to contribute to the social transformations related to the city, in particular the empowerment of citizens and to train administrators and professionals more aware of their political and social role in the construction of more equitable and sustainable cities.

The project is configured as a pilot action, and it is hoped that it will be replicated in other schools and cities of Mato Grosso. It constitutes for ScAR – which collaborates to the research by providing the experience gained – a valuable opportunity to verify the methodologies developed that are now being applied in a high fragility context that, although different from the one experienced in Milan, is equally referable to the theme of urban peripheral areas.

14. OCA is led by the *Faculdade de Arquitetura e Engenharia dell'Universidade do Estado de Mato Grosso* (co-ordinator Professor Juliana Demartini) and has as partners, in addition to the Politecnico di Milano, the GESTUAL Group (Group of Socio – Territorial, Urban and Local Action Studies) of the Faculty of Architecture of the *Universidade de Lisboa*.

The participants' perspective.

Understanding the impact of the project

A complex and multi-faceted process such as the School Activates Resources (ScAR) project which works primarily with people, and moreover with young people in education, requires an assessment methodology that is flexible and complemented by qualitative considerations. Indeed, although the “numbers” of this project (to which we will return later) might be significant for evaluating its scope with regard to the amount of subjects involved and the extent of the actions, this type of research resists a quantification of the results in a strict sense just as it resists an immediate calculation of its impacts which should instead be examined in the long term. The capacity of the actions to influence young people in terms of, for example, their sense of citizenship, strengthening the relationship with the territorial area to which they belong or developing an informed use of technology cannot be evaluated in the short term and in any case it would be extremely difficult to isolate the contribution of this experience within the educational path of each individual. In one of the phases of consultation with the participants during the project, one of the teachers, although expressing her complete satisfaction with the process, when asked “After ScAR what benefits will remain for the students?” responded: “It is difficult to say, because I find it difficult to imagine ‘students’ as a category; I immediately think of specific names and I remember each of them on this journey, each of them will take something different away”.

In order to define the impact of the research project, it is also necessary to consider that it allowed for the actions to be jointly-planned with the partners and, most importantly, the schools. It follows that, starting from the initial impetus and the training of the teachers, the education activities of the various classes grew significantly different over time, giving origin to different journeys and outcomes. The evaluation of the outcomes of the actions must therefore also consider the specificity of each class's individual educational project, in terms of detail, time spent, whether or not the group belonged to the pilot actions and so on. Moreover, the project worked with a wide range of ages (7-19 years old) and operated in a wide range of settings. From this overall picture, it is evident that the evaluation of the benefits of the research project must follow broad lines of reasoning and consider primarily qualitative parameters.

For all of these reasons, both during the process and during the final reflection phase, the observations and feedback of those involved were of

The feedback collected

In total, 43 documents were analysed in the impact assessment phase. Of these, 8 are “Kick-off meeting surveys” relating to 7 different institutes across three levels of schooling; 8 are closing reports by teachers or groups of teachers active in the educational projects carried out as part of the research project (“Summary reports on the experience”); 13 are structured reports that accompanied the accounts presented at the meeting of the PoliCultura partner project as part of the special ScAR track; 7 are reports by interns, i.e., students on programmes at the AUIC School (Architecture Urban Planning Construction Engineering) at the Politecnico di Milano who undertook the curricular internship required by their educational plan

within the context of the ScAR research-action; lastly, 7 are transcriptions of video interviews carried out with teachers belonging to 4 of the 5 partner schools active in the project. Of these, 2 refer to the work carried out in the primary school setting, 3 to the lower secondary school setting and 2 to the upper secondary school setting. Among the teachers interviewed, two had coordinated several educational projects linked to the research project, one had conducted the same educational project in several sections of the same school, and another had coordinated a group of teachers working with a class. Therefore, the interviews carried out relate to the work of 17 classes, in addition to the direct experience of those interviewed.

“Kick-off meeting survey”

Kick-off questionnaire, taken after the first public presentation meeting.

- School order.
- If it is a Secondary School, specify which address.
- What is your role?
- If you are a teacher, what is your subject area?
- If you are a teacher, what subject do you teach?
- From whom did you learn about the project?
- After the meeting on May 8 at the Polytechnic, the project is now clear/ overall clear/ unclear.
- Comment on your answer here.

- What expectations and educational potential do you see?
- What potential problems do you see?
- Have you reported the project to colleagues?
- If so, to how many?
- How likely do you think you are to participate? (From 1 to 5)
- Are you interested in receiving more information about the project?
- Would you like to provide us with the email address of colleagues interested in receiving information about the project?

“Experience Summary Report”

Structure for writing the report required of all teachers who participated and presented their final products.

School and coordinating teacher

(Name; School order)

Teachers and children involved

(Which teachers were involved in the implementation of the project? How many children/classes?)

Type of activity

(Which of the ScAR activities was chosen)

Activity Title

(If it was given)

Brief description

(What does the work consist of? How does it meet the goals of the ScAR project? How did the idea to participate come about, how was the activity chosen, how were the students motivated, how/if colleagues were involved, how/if families were involved...)

Relationship to the curriculum of the subject

(Monodisciplinary work, Multidisciplinary work, Extracurricular work)

Disciplines involved

Disciplinary objectives and instructional methods

(What instructional/discipline goals/were there set? Were “transversal” objectives – e.g., motivational, technological, socialization objectives – expected to be achieved? How were these goals achieved?)

Tasks and roles

(Distribution of tasks and roles between students and teachers in the various phases of work: was the class divided into groups? Chosen by the teacher or by the students? How were different talents and aptitudes of the pupils taken into account? Did everyone take care of

everything or did each group have exclusive tasks? Were the groups homogeneous or uneven?)

Organization of work phases

(How was the work organized? Was it divided into phases? With goals/deadlines?)

Spaces, times, tools

(Where did the project take place? (school, home...) How much time was needed? How much and what work was done in class and how much and what at home? What tools, multimedia and otherwise, were used?)

Resources

(Did you use help from outside the school? E.g. families, experts... or internal to the school? E.g. other colleagues, the school technician... For what aspects did you draw on help/resources? For technology, for instructional organization, for content...?)

Distribution and dynamics of “knowledge”

(Who learned, what and from whom/what? Teachers, students, from books, the internet, each other, thanks to outsiders...)

Overall evaluation

(Evaluation of the whole project and of the training process: what worked, what didn't work? What were the educational benefits achieved? Were there any benefits for the teachers? What were the problems encountered during the activity and how were they solved? What can be improved? How did the children evaluate the work? etc.).

Inclusion

(Did the project encourage processes of inclusion of pupils with difficulties?)

Any anecdotes

(Did something particularly interesting happen? A relevant episode, a remarkable comment...)

“The teaching experience with the ScAR project”

Questionnaire-track for video interviews with teachers at the end of the process.

- Present yourself and your school.
- Present the socio-economic and cultural context of the students in the school.
- Describe specifically the class involved.
- Tell us about your approach to teaching.
- What was your and the students' motivation to join ScAR?
- Was the activity conducted regular time class?
- What activities did you do for the ScAR project?
- In what ways did the students work?
- In terms of inclusion, is there any aspect to report in relation to the project?
- Did you use any digital technologies?
- Did you include an evaluation for the activities?
- What benefits do you think your pupils gained from the experience?
- Did you encounter any problems during the activity?
- Is there an anecdote that you think is significant to remember?
- Do you think you learned anything from the experience?
- What is your overall comment?

fundamental importance to the working group and were collected in various phases and by various methodologies, the most appropriate method being chosen for the responder, the phase of the project and the circumstances in question. Therefore, structured consultation actions were developed through reports, questionnaires and interviews at crucial phases of the project, such as the teacher training sessions, the workshops that followed, the regular monitoring and joint planning sessions and the pilot class checkpoints.

To go into greater detail, during the kick-off meetings at the beginning of the research project, the participants were given a questionnaire regarding the clarity of the project, its focuses and the expectations and the delivery of work produced by the end of the project. When registering for PoliCultura, the digital storytelling contest, the teachers were asked to compile a semi-structured report on the experience. Finally, at the conclusion of the activities, a series of video interviews were carried out with certain participants including coordinators of the educational projects within the schools and a selection of teachers identified on the basis of parameters such as the focus and level of innovation of the educational activity they delivered as part of the research project and the strength of engagement and involvement.

During the research project, certain educational projects were identified as case studies of particular interest which were then the subject of a special

observation by the research team. The choice was made on the basis of the type of activities carried out by the teachers (pilot activities of particularly well-structured and meaningful projects), but also on the basis of class configuration in terms of age, level and type of school, social background of the students, cultural make-up of the class and whether the school had widespread issues with low engagement or early school leavers. These case studies were followed during the project and/or analysed at the end of the activities.

In addition to the structured consultation with teachers, further steps were added for ongoing exchanges with the project leaders as well as informal meetings with the children and young people during the activities. During the promotional events, parties from outside the schools were also consulted such as representatives of institutions, professionals from relevant sectors and even ordinary citizens. The concluding assessment phase also took into account the final reports written by the interns, students on programmes at the School of Architecture Urban Planning Construction Engineering at the Politecnico di Milano who offered a different point of view having participated in the research project as part of an internship required by their educational plan.

An important part of the evaluation of the outcomes of the research project relied on a review of the materials produced by all of the classes during the various activities. There was a substantial quantity of texts, written and graphic works (drawings, maps, diagrams, diaries, reports) and various digital works (digital maps and storytelling, multimedia guides, gaming applications). The materials were reviewed during intermediate phases as works in progress as well as once they had been finished. The quality of such materials, assessed in terms of their significance and relevance, is indicative of the efficacy of the processes that created them.

Where possible, such as in the case of certain digital applications, quantitative elements were collected for assessment, such as the usage data of the works made available to the public at the end of the educational projects. The data and results of these reviews emerge, both in pure and synthetic forms, from the descriptions of the processes and the works created by the classes and contained in this book.¹⁵ The following paragraphs will however contain summaries and examples of the reflections that emerged from the questionnaires, reports and interviews. The teachers' comments have been arranged into the following themes: description of the students' background, their engagement,

15. The comments that emerged from the review of the materials produced have been included in the chapters describing the activities (chapters three and four).

analysis of the project's methodology, the potential of this methodology in terms of inclusion and diversity, the role played by technology, the overall effectiveness of the actions and the benefits for students and teachers. For confidentiality reasons, information that could identify specific students and teachers has not been included. Instead, the aim was to create an overall picture capable of providing the basis for a reflection on the project's methodology and ScAR as a case study and pilot project.¹⁶

The social and cultural context and classes composition

The social and cultural context in which the actions were employed, as described by teachers and project leaders on several occasions, appears to vary by type and location of school within the research project's area. Predictably, the characteristics linked to the location of the school are more pronounced for the primary and lower secondary schools as their intake is predominantly from the surrounding neighbourhood while it is less evident in the case of upper secondary schools where students belong to a larger catchment area. In these schools, the differences in terms of student profile, academic success and engagement are instead linked to the type of educational offering (professional, technical or lyceum).

While broadly responding to the general concept of "peripheries", as has been seen, the research project's area is vast and includes various circumstances, as can also be seen from the teachers' analyses. We therefore had schools in which the intake was defined as 'medium-high' and others in which it was defined as "medium" or "low" with regard to social and/or economic hardship and cultural poverty. Even the multicultural make-up of the class groups, being linked to the proportion of families who have a history of migration, varied greatly from a few cases per class to other groups in which the proportion of students of foreign descent, mostly second generation, exceeded 70%.

«My class is made up of children belonging to families with a medium-high level of culture who are therefore already accustomed to a certain level of demand within the family of a cultural nature and when exploring certain subjects explained one teacher. «In the Seventies, the neighbourhood expanded

16. For this reason, it was decided that internal reference codes for the cited documents (kick-off questionnaires, interview transcripts, statements and reports) would not be indicated in order to avoid the identification, whether by comparison or recurrence, of the specific settings to which the comments included refer.

with a lot of attractive housing: many professionals decided to move here rather than to other, more central areas,” added a colleague from the same setting. Referring to a different area, one teacher instead reported that the intake of her school was “medium-high”: «despite the type of families that live in the neighbourhood» she specified «it is a neighbourhood of transition, with many different cultures, a neighbourhood that is open to new possibilities of interaction with the landscape and people of other countries». Another teacher, speaking about older students, described a difficult situation, above all in terms of academic success: «This school takes in many drop outs from other settings as well as a high percentage of disabled children: many of our students have a background of academic failure because they have come from lyceum where they have tried and, for a series of socio-economic, personal and family problems, have been expelled». The same teacher added «It is definitely not a given that this lowers the quality of a school, but it definitely adds complexity because there is greater need, with varied demands and educational requirements. It is clear that you need a different path if, for example, you carry certain vulnerabilities with you».

Engagement

With such a varied picture, the students’ engagement was also different in each case with responses ranging from immediate and active participation, including the support and cooperation of families, to settings in which obtaining the collaboration of the children was a challenge in itself.

In any case, the majority of teachers stated that the children willingly took part in the activities: «The children were completely committed to taking part», declared the project coordinator of a lower secondary school. A colleague confirmed: «The children happily embraced the project». «The children worked enthusiastically», a primary school teacher similarly declared, adding: «Some of them even made proposals, attempts to change, organise and add something of their own».

By contrast, other teachers told of fatigue and episodes of disengagement that occurred during the process, above all in the older age groups and in the technical and professional school settings. «It was difficult», said one upper secondary school teacher, «to obtain a consistent level of work. It is not an easy thing to acquire; the mindfulness of responsibility, of others’ opinions [...] because keeping to commitments is complicated and if you do not know how to commit to yourself, how can you make commitments to others? How do

you value yourself and understand the value of a commitment?” «I cannot lie» admitted the same teacher, «and tell you that the students were always enthusiastic and overjoyed. It was not like that; it was not a fairy tale: it was really very difficult. We really struggled to rethink how to motivate them, almost daily».

A teacher at another school even described a critical phase during the work-related learning programme followed by their students: communication between the experts and the children did not always work well and, as she told us, «There were tasks that were carried out in a very superficial and incomplete way that did not reach their target». Consequently, about halfway through these students’ journey, the teachers and experts undertook a joint exercise in taking responsibility which proved to be effective. At that point, the students were told: «Okay guys, we need to renegotiate, we need to understand each other. You are doing work-related learning which means being accountable to someone outside of the project». «After that», said the teacher, «it definitely went better; we had to redirect the group a bit on what it wanted to do, where we were going, what we wanted to achieve, what the final product expected of them was. In short, it was quite demanding but in the end we were able to achieve what we set out to do». «This was definitely a positive aspect of the experience», concluded the teacher, «we decided to take part in this project as an alternating school and work programme and so, with good reason, the students were required to respect deadlines and the commitments made with a certain degree of independence and learn to work as a group. Towards the end we achieved that and so from that point of view it was also a learning experience for us».

Relationship with the local area and citizenship education

All the teachers reported in various ways that the students developed a new interest in their local area, becoming involved in the discovery and interpretation of the values and memories enclosed within it.

«The chance to create a personal project, a personal interpretation of the places but also the conditions in which they and their friends live, was an extremely important stimulus and an important motivating factor», one secondary school teacher told us. «At their age (12-13 years old) » she added, «curiosity is only piqued by certain factors and stimuli. They therefore overlook certain places and social conditions in the local area but, thanks to this project, we were able to awaken their curiosity and this was one of the objectives we had given ourselves. So there has been a rediscovery of the places they visit, or walk and cycle by, and those places they had never stopped to consider [...]

But above all» she concluded, «in my opinion, they have developed a sense of civic responsibility. That is, they have learned that some of their surroundings have a social value, as well as artistic or architectural value. And in this case the class even made proposals for the improvement of social settings».

A primary school teacher confirmed the positive impact on the relationship between her students and the local area, despite the fact that in many cases the children at her school had very limited opportunities: «It is difficult for the families to move so learning more about the territorial area [in which they live] has been rewarding for the children».

From the reports by the teachers at upper secondary schools however, it transpired that asking the older students to view their own territorial area as a field of investigation can be difficult. «At the start» one teacher told us, «the students actually asked me: “Miss, what is there to go and look at here? There isn’t anything!” [...] Then at the presentation [during the presentation of the project’s outcomes at the Institute] almost all of them would say that the positive side of this project was going out and discovering places they had known absolutely nothing about. So yes, we definitely met that goal and the goal of communicating it to others. Firstly, through their own discovery and then by sharing that knowledge with others». «We definitely achieved the project mission, beginning to understand the existence of a shared heritage and appreciating it» concluded the teacher.

Methodology

In many cases the teachers’ reflections in both interviews and reports focussed on methodological matters, emphasising the potential of an educational action that is based on a multidisciplinary approach, authentic learning, project learning and inclusion.

At the beginning of the process, we asked teachers «What exactly made you choose ScAR?» and often the response was of a methodological nature. «The inspiration for School Activates Resources» responded for example two teachers who were already using the flipped classroom method, «seemed very similar and relevant to our ideals of teaching and school». «In the beginning it seemed bold», they added, «for our level of school [a primary], but the research team welcomed us to the trial and guided us [...] and in the end all of our work over the year has been centred on this project, not for the sake of the project, but because it was preaching to the converted». They also added: «It was in line with the curriculum, definitely! Our method consists of taking

any impetus which we then elaborate on. You could say that our entire annual programme revolved around ScAR».

Additionally, an upper secondary school teacher noted: «This project was an ideal chance to show that education, which is the art of teaching, is an open art. It is the art of finding the key to learning for someone in a meaningful way».

Continuing on the theme of methodology, the multidisciplinary component was also highlighted positively by several teachers. For example, an upper secondary school teacher told us: «The ability to involve multiple subjects was important, especially because one of the criteria advocated by our Plan of the Educational Offer (“POF”) is specifically the use of an interdisciplinary approach. Therefore, in this case, the project was perfect as it allowed for activities involving more than one subject».

The majority of observations on the methodology related on the whole to the motivational power of authentic learning and project learning together with the potential for inclusion of activities that allow for work in groups on different tasks with a view to reaching a common goal. The upper secondary school teachers generally reported a development of project management and activity planning skills and an increased capacity for work in groups: «In terms of benefits, the students learned that when you work in a group, you need to collaborate», we were told by the coordinator of a pilot action that brought together students of several classes and pathways, and she added: «They learned that you can only reach the final goal if everyone does their part». «I believe» explained another teacher in a particularly underprivileged setting, «that this type of project, that involves the creation of something and has a defined end-point, helped them to understand the responsibility to the deadline. In school they do not respect deadlines. In this case, they learnt to use complex programmes in a very short time, and they completed a very complicated task on time, with several layers of narrative joined together. «They learned», remarked a teacher at another school similarly, «that when there is an external client it is not like having a teacher who tells you: “You have not studied! You get a low grade, but tomorrow you can make it up!” That is not the case here, you have to be accountable and respect the deadlines that you are assigned. In the end they learnt to achieve a goal. They learnt skills that you would undoubtedly struggle to pass on with traditional methods».

The effect of authentic learning was also highlighted in the reports and interviews from the younger age ranges (6-8 and 11-14 years old). «When there is a goal with personal gratification», one lower secondary school teacher told us, «there is always the desire to challenge yourself, [...] to strive for

authenticity, to make a mark with your ideas, to do something concrete and genuine». «When I handed out your certificates to the children», she concluded, «they were very happy: they felt important which is definitely positive; they felt they had a positive impact and for that they were happy». «The students' engagement», recounted one upper secondary school teacher, «grew slowly, step by step as they learnt what the local area can offer and later at the moment of applying this knowledge», The teacher explained that these students had been influenced by «the joy of creation, putting something into practice, seeing the theory of the research previously carried out become a something tangible to offer to others» She also added: «We made them the promise that [the project] would become something public to offer to others; if we had removed this, it would have been less engaging for them because it would have ended up as just a task to carry out: "I did it, they gave me a grade and nothing more, the end!"». Instead, this moves forward, it can evolve».

Among the parts of the methodology that were evaluated positively, the affordability of the actions was also highlighted. Indeed, several teachers reported that ScAR, unlike other projects, had a low cost for the schools. There was no charge for taking part in the research project and basic facilities that were already present in the schools were used for the educational projects, with the exception of very few activities that required professional tools or specialist services, such as photography with 360° camera or the development of urban gaming applications. However, in these instances the costs were borne by the research project. Naturally, operating in this way offers advantages in the medium and long term. The vast majority of the experimental activities could be replicated by the schools completely independently without any cost.

The use of technology

Many of the teachers that were interviewed having been involved in the activities using technology reported that there were benefits to their students in terms of computing skills and searching for reliable sources on-line. Even when the students were already accustomed to using technology in learning activities, the teachers observed an increase in their knowledge and recognised an opportunity within the project to update their methodological approach. From the accounts it transpires that the students were quick to welcome the digital tools that were proposed which, although not complicated, were new to them and the teachers and learning to use them was generally straightforward. One case in particular is significant for its relationship to the theme,

especially because it was a pilot alternating school and work programme activity that entailed substantial use of new technologies: «The students did not have any difficulties with the technological tools that we used», stated one teacher involved in the activity. «The teachers had been trained to use them [by experts provided by the research project] however the children used them without needing any help; rather it was they who explained how to use them to the teachers». Following the activities, as the same teacher reported, the students that had participated in the project and belonged to different classes, used the skills acquired in new contexts and also conveyed them to classmates who had not taken part. For example, some students voluntarily used the applications they had learnt to use (in this case a freeware tool for creating multimedia tourist guides) to prepare for and document their school trip. «Each of them», added the teacher, «had to study a monument and act as a guide to their classmates. At a certain point one of the students from the ScAR project in this class said to me: “Sorry miss but can’t we do it with Izi.Travel?” “Of course you can!” They organised everything themselves and asked their classmates to help».

The use of technology, as this episode also documents, was generally engaging for all students in the range from 12 to 19 years old. There was a further interesting outcome whereby a new attitude to the use of technology was observed; there were small changes in ordinary behaviours that indicated the emergence of a new awareness of the relationship with the digital world: «They are effectively digital natives», noted the project coordinator at an upper secondary school, «but they do not always know how to use technological tools appropriately. This has therefore been a great help: for example showing them that the various social media platforms can be used differently to the way they use them every day». In some cases, the students used social media for the purposes of the project of their own accord and showed, using the words of their teacher, «that they had learnt to make use of social media in a professional and informed manner».

The motivational power and the development of greater awareness seem to be the most relevant aspects of the use of digital technology in the project to which the significant contribution the authentic learning teaching method can be added, since the technologies introduced allowed for the creation of products for the analysis and promotion of cultural assets that could then be shared with a real audience outside of the schools, making the children’s views of the local area and their interpretation of its heritage available to the community.

Inclusion

Project work and group work facilitated inclusion in many cases, not only in multicultural and multilingual classes but also with regard to children or young people with special needs or disabilities. To cite a specific case, in one of the schools involved there is a trial for the inclusion of students affected by autism spectrum disorders: «Our school is geared towards the inclusion of children with quite serious learning difficulties of varying levels because some are high-functioning while others are not and require a simple, workshop-based approach to learning; each of them is different and requires targeted work» explained one teacher at the school. These students took part in the activities within their normal classes but also within their special class, working on a specific educational project for ScAR that defines it and was presented, through digital storytelling, as one of the cultural values conveyed by the local area. Incidentally, the school in question has a solid commitment to inclusion that sees that classes include students with different experiences and circumstances. «Another distinctive trait of this school» added the same teacher, «is that we have a Roma camp nearby so there are Roma students in our classes, although their attendance is sporadic». In response to the specific question «Has this research project encouraged inclusion?» another teacher from the same school also answered positively: «The best students contributed to inclusion by stimulating their classmates. This often happens [...] and it is also rewarding for the better students because they identify with the role and their classmates learn to interact with someone who has a clearer idea of the activity».

The question about inclusion was posed to the teachers of all of the schools and the responses largely confirmed that the learning methodologies adopted by ScAR encourage inclusion and that group and project working allows for the differentiation of tasks, valuing the skills of each individual. «For those with linguistic difficulties we compensated by making use of the medium of drawing» explained one primary school teacher. «You teach me to do sums» she added, giving an example of the dynamics between pupils, «but I am teaching you to make a basket [as part of an activity about artisan culture] and both things are equally important to my teacher!» These dynamics become more complex once the secondary school classes are taken into consideration, especially when children arrive at upper secondary schools with difficult educational backgrounds. «The ScAR project was also a new source of motivation to stay in school» a teacher who works in a setting with high levels of early school leaving told us, «because it is different from [ordinary] teaching during which they are normally squashed together». Indeed, changing the

surroundings, leaving the school and working in the community may help in these cases: «A student may have shown disapproval for a certain type of activity, but perhaps he can show me that they can do it under different circumstances; he merely does not want to do it in school». In these cases, giving students freedom may encourage their involvement and uncover unexpected abilities: «We tried to eliminate all preconceptions and only in the end we realised that, at least in part, they confirmed the attitudes that they had already shown [...] Nevertheless, this allowed each of them to choose their own path meaning each of them discovered their own ability to be useful to the project». Recognising all abilities can also help in supporting self-confidence and conflict management. «In the group learning phase» the same teacher reported for example, «the students were able to reflect: “I know how to do this, I can do this, they have asked me to do this because I am important so I will not be distracted by the person who insulted me”. And this did actually happen: they argued amongst themselves during the project».

There are various episodes in the teachers' accounts of untapped potential emerging during the project: the failing, disengaged student who turns out to be more productive when he begins creating videos and is the quickest to learn how to use the editing software; the unsettled, argumentative and destructive student who manages to capture a fragment of humanity and beauty in a video taken on the streets, thereby encapsulating the essence of the difficult neighbourhood and elevating the quality of the final product; the vulnerable, disabled student who finds the courage and motivation to make his voice heard; the student with reduced mobility who finds a way to offer his own vision of the city, filming it from a tram. We would also like to include the case of a student who arrived in Italy only a few years ago. She was shy and reluctant to speak up, but through the project's activities she displayed skills that had previously been hidden, such as organisational and leadership abilities, together with unprecedented levels of engagement and a proactive approach that she then applied to other activities outside of the research project over the school year. In a short time, the girl became a point of reference for some classmates and even for the team of experts who had assigned tasks and responsibilities to the group.

To conclude, the outcomes described above should above all be attributed to the teachers' meticulous work and awareness, and in many cases to that of the students. However, the project undoubtedly offered the school community a working framework in which these dynamics could evolve and in many cases we received reports of surprising and unexpected outcomes.

Multiculturalism

In contexts where the meeting between cultures was a sensitive subject, the project was also a vehicle to strengthen multicultural teaching, working locally, in fact, can also be an opportunity to encounter the different cultures that are there and to build bridges with students' cultures of origin. One of ScAR's teaching projects, dedicated to the neighbourhood of a primary school and to the intangible heritage made up of artisan knowledge, clearly exemplified this assumption because it also represented an opportunity for teachers to get in touch with the children's families and have them talk about the places where they come from. «The little girl who comes from the Philippines - said a teacher for example - explained life as it is in the Philippines, she remembers it because why she goes back there in the summer. Parents want her to keep their roots». «It was nice to involve families from other countries too - said the teacher - a mother from Santo Domingo came to tell us about the craft activities that are there, so for example making things with natural raffia: they dry it and then make baskets, it is basically the wicker plant. They make furniture and baskets which they then sell. And the way of trading is completely different from ours, it provides for a much freer interaction». «The comparison was also pleasant - added a colleague - for example the Egyptian tailor told about their typical clothes, and then this mother from Santo Domingo told us that in their country, tailors do not work like this, they go to customers' home, drink a coffee and eats a slice of cake with them, really just another way of dealing with customers». «It was in fact also an intercultural comparison - observed the teacher - not just between Italy and other countries [but also between all the cultures present]: this made every country of origin equal, that's what we wanted... This is integration». The children were therefore also valued as carriers of their culture of origin, starting from their knowledge of their native language: «Arab children, for example - explained the teacher, telling of walks around the neighbourhood - directly translated Arabic signs and wordings [on shop windows] into Italian; something like this also occurred with the Chinese beautician: there are details that [the beautician] described and that the Chinese girl recognized and confirmed». These teachers have shown how working in this way, by teaming up and pooling all resources, can bring children closer to the reality of a multicultural society, helping to break down prejudices and stereotypes or to prevent them. «Children have absolutely no prejudices - the teacher stressed - if it's not the adult who passes them on to them [...] especially our children, who come from all over the world». Referring to an episode that occurred while scouting around the neighbourhood in

search of crafts, the same teacher described an episode: «We got to the Chinese beautician and we wanted to ask her where she learned her trade, and we thought maybe some beautiful town in China. But she replied: “In Pesaro!” Where?! And there we understood that in any case one is biased even without wanting to be, this too is a form of prejudice». «We learn from them - she concluded referring to her children - as they enrich us by telling us experiences from other countries, and we try to include and instruct them, and at the same time we enrich each other by sharing experiences».

Benefits for students, teachers and the community

Some of the significant benefits deriving from the project clearly emerge from the teachers' statements on topics as diverse as those dealt with so far. However, we would also like to recall here some of the teachers' answers to the direct questions on the results of the action research: «What benefits do you think your students have had thanks to ScAR? Were there any benefits for teachers?». In response to these questions, various teachers reported various kinds of benefits for students, of which a good amount has already been said, for example in relation to digital skills and relations with the local area. Many teachers, as we have seen, also reported an increase in planning skills, i.e., the ability to plan and organize the stages of a task or the ability to organize information and transfer it between different areas, to re-elaborate and transmit it. «The children have certainly learned to manage the phases of a project, which is an important skill» a secondary school teacher (students aged 11-14) told us. «They had benefits for digital skills - said a colleague from the same school - because they had to work a lot with IT tools, but in the meantime they also developed design skills, also in the sense of programming, because the work we did involved different stages». The teacher then added: «They had to render what they were looking for graphically or with texts, then they had to synthesize, re-elaborate graphically or by computer some information they had on paper, such as maps». Even older children, as stated in the report by an upper secondary school teacher, have learned «to write texts taking into account the context, the purpose and the recipient» and «to coherently integrate texts and images». A primary school teacher then included other aspects among the benefits: «Definitely the ability to work and the development of critical thinking, or rather the laboratory activity to develop critical thinking. And the enhancement of any type of intelligence is the inclusion of any child». And then he added: «Furthermore, the fact that they develop this

idea, which is not to be taken for granted: that knowledge is not sectoral. I'm not doing Science, Geography, Italian, but I'm learning, with knowledge that comes to me from various subjects. And this enriches our students».

Many considerations, in the reports as in the interviews, concern the relationship with the local area. For example, «children certainly now look at the neighbourhood through different eyes» a teacher who worked on interculturality told us. The consideration also applies to secondary school students: «They began to look at the near reality in another way - reported a teacher who worked with 12-13 year olds - they were urged to observe very well what is there and also what is not there. Observe looking with the mind, in another way, and thinking of planning the space in another way: "Now there is a park, but what do I dislike about the park? How would I change it? What do I see in it?" It was a fantastic part and also very useful for them to imagine their future, even as a personal competence. And we have invested in this discourse of the future». «Our teaching path - added the same teacher - was also linked to change, finding one's own path, changing the things that exist and making them more beautiful. This was certainly an added value for the project».

As for the benefits to themselves, some teachers report having transferred the skills acquired to new contexts, having «used the tools and methodologies in their own curricular activity outside the project». In general, however, the impression obtained from the reports and interviews is that in many cases those who joined the project were already oriented to similar methodological approaches, and that they found in ScAR the opportunity to develop them, to give space to and nurture a way of teaching that was already dear to them. «This project helped me just do things I like doing» a secondary school teacher told us quite simply. Beyond this harmony of intent, for some the project was also an opportunity to try their hand at something new. «I have certainly learned to have a go even more. At the beginning, after taking the course, it seemed difficult and I said to myself: "We have such young children, maybe it's not a good idea...". But then we decided to give it a try, so I rediscovered the value of always questioning ourselves».

Thinking in terms of benefits for the community, teachers' mainly make reference to the families, which the children involved in their activities by asking questions or through interviews, feedback meetings; sometimes family even invited to participate in laboratory activities. «Involving parents and grandparents was a very important stimulus - explained a secondary school teacher - because through them [the students] have discovered anecdotes, situations, buildings that no longer exist, but which have been described to them». If we think about these statements and what has been said, speaking of multiculturalism regarding the involvement, for example, of craftsmen and

neighbourhood traders, it can be said that the benefits of a project like ScAR can also extend to communities. Some of the children who have followed these projects, as a teacher told us for example, have few opportunities to get in touch with the community outside the school: «They never leave the house and we have only travelled a minimum distance, but some just stay at home, at most in the park in front of the school, so not only have they known the place where they live, but they have established contacts: now they pass by and greet the craftsmen because they remember them. This project expanded their world and created a community. It was also inclusive for the craftsmen!». In another neighbourhood something similar happened with secondary school kids: «They also went to “bother” all the shopkeepers on my recommendation - said their teacher - [...]. And they did it by bike, out of school hours. Since I am an historical citizen of the neighbourhood, every now and then I would go into a shop and shopkeepers would say to me: “It’s you who sent them, eh?!” They were all happy: especially the historic shops, the older shopkeepers are very happy to be able to talk about past times and how commerce was different».

Anecdotes such as those reported show how, starting from what is close and tangible, as in these cases the area and the neighbourhood shops, it is possible to build connections between students and their local area, their community, but also with what happened in the past or elsewhere, with other ways of living, conveying to the students the idea that all knowledge, every age and every culture is equally worthy of attention and interest. Not only that, starting with children and schools, intergenerational and intercultural encounters can also be encouraged between the adults of the community, as happened in these cases between the families of the students and the inhabitants of the area, representing different generations and experiences and sometimes being the bearers of different cultures.

Orientation

An orientation action was not among the initial objectives of the project, since those participating were mainly from the lower secondary school, and also the upper secondary schools involved did not present polytechnic curricula, and a direct benefit in terms of orientation to university studies was not expected. For many young people, however, the very idea of being involved in a project from a well-known and recognized university was actually stimulating, as emerged from the teachers’ stories, and for some it opened a new

horizon of possibilities. «The Politecnico is one of the universities they hear about as an excellence - an upper secondary school teacher told us - therefore, the idea of working with teachers from the Politecnico was certainly one of the reasons that led them to participate in this project. Yes, in my opinion a good part of the students who participated did so because it was proposed by the Politecnico di Milano». «Lately we also have a good percentage of students from the Istituto Tecnico per il Turismo (technical school for tourism) who decide to continue their studies and go to university» explained the teacher in fact, «the idea of going to visit the Politecnico came from the students of the Istituto Tecnico per il Turismo participating in this project: “We are working with the Politecnico, but aren't we going there?”. They wanted to see, they did the laboratory activities. And one of the girls who participated, when asked about the positive aspects [of the project], rightly mentioned the visit to the Politecnico. And this is a great success also because for us, due to our field of study, continuing at university is not taken for granted, and above all it is not usually at the Politecnico [...]. So we were positively impressed by the request from the students from the Istituto Tecnico per il Turismo to go and visit the Politecnico. They became curious about the type of activity». A curiosity that, in the secondary school context, also stimulated much younger children, as a teacher who works with the 11-14 year olds told us: «Just think that two or three have told me: “I want to be an architect!”. Someone, in this activity, has discovered a profession that they probably would not have known. This contact with the world of the Politecnico gave them more information on professional figures such as architects, engineers, urban planners, who we had dealt with in Technology class doing Construction Technology, but they did not have a very clear idea: yes, it is a name... like that of many professions. And some students, who were already predisposed to graphic reworking, said: “Well then ... maybe I'll be an architect!” It is one of the objectives that we set ourselves at school: to try to make children try various experiences in various professional fields».

Limitations and criticalities

In all consultation phases, teachers were asked to highlight any difficulties or problematic aspects encountered during the project. From the responses it emerged that the limitations and criticalities found by the teachers focused on three main aspects: the difficulty in making the project work within the ordinary teaching structure, the difficulty in motivating older children to make

the commitment required and finally the strong workload required, especially concerning some particularly demanding didactic projects. Although these are not across-the-board findings of the participating schools and classes but rather of difficulties relating to specific cases, it is useful to analyse them because each is indicative of potentially recurring situations that can be found in different contexts.

The first aspect, reported in two different institutes, is, as has been said, the difficulty in reconciling the usual work structure of schools and project activities. «A negative aspect - the coordinator of an educational project that is particularly challenging in terms of organization, because it crosses different classes and tracks, told us - is that this project has also emerged as an extra-curricular activity, that is, few of us have managed to bring it into daily teaching». Furthermore, in the same school, in the face of a high level of participation in the teacher training phase, the actual participation in the activities was limited and the investment of teachers was uneven, which could indicate a difficulty in putting into practice a thematic and methodological proposal that also catches the interest of teachers. However, we were told that, again in the same school, some teachers have applied the training received by ScAR within their curricular activities even without actively joining the project, which is encouraging in relation to the replicability of the actions in the future.

A second aspect, as anticipated, concerns the difficulty in motivating older children, especially in relation to a task that has external contacts and therefore requires the achievement of results in set times. «There have been many difficulties in rebuilding motivation every day: ours, theirs and in the relationship» disclosed a teacher at the end of the programme. «It was not easy - she added - to be a coordinator, I realized that for young people who are not used to respecting delivery, to self-referent motivation - 'I work not because I am obliged to, but because I feel that it is my responsibility!' - this is also a sign of maturity, which certainly was not easy». Teachers' reflection on the difficulty of their students in taking on adequate responsibilities is common to upper secondary schools. «We also wondered - another upper secondary school teacher told us - if we pamper them too much. School users have changed over the years, so now we get students whose families justify them at any time. So we're perhaps a bit too soft, or rather, we try to understand these students». From the Nineties to now, he explained to us, «students have changed a lot and we actually have to adapt a little bit to this change, even our relationship with parents most of the time is not easy».

In some cases, teachers who work in classes with complex dynamics have reported that they also considered the eventuality of letting student experience

failure with respect to the project (not completing activity, not delivering expected results), as an educational step, but then, how a project representative said, «The determination to give them the satisfaction of ending this programme and this concept prevailed: I show you that if today I don't listen to your frustration, I don't raise my voice or I don't listen to you, or I don't punish you because you are not in the mood for working, but rather I embody everyone's result for you, then I am a good model for you. [...] Because this is also the point: to believe in it for them too. Is it true: do we take their place? I don't know, maybe it is better to say that we support them».

A final critical aspect noted, as anticipated at the beginning, concerns the amount of work faced by teachers who have undertaken the most demanding teaching programmes. «There were times during the year when my colleagues would probably have physically eliminated me» the coordinator of ScAR activities in one of the schools that spent the most on research revealed with irony. The main difficulty in this case was «to reconcile a project like this with the ordinary teaching structure». «Because - observed the teacher - it is a very demanding project, especially on a lower secondary school class. In my opinion the results are very good, but this is because the time devoted to the project was truly remarkable. Only this time has been removed from regular programming activities, [...] the timetable was still the original one and in some cases we were able to make it coincide with activities that we could include in our programming, but in other cases we didn't manage to do so. So, it was challenging and I must say that the kids arrived tired: satisfied but tired. So, probably an activity of this kind, if I had to do it again, I could do it over two years, not just one». «At a certain point the neighbourhood [which was the project's theme] exploded in our programming» said another colleague from the same school, satisfied but also tired at the end of the programme. And she went on to tell us: «I want to tell you this: the amount of work was still very important, [...] the activities involve a whole series of investments and either one who has many teaching hours takes them on - but in this case you must be aware that you'll only have time to teach about half your usual educational programme - or a better sharing solution [among teachers] must be found» sharing which, however, in the current school structure, she explained to us, is substantially impracticable. «Not to mention the time it took to rearrange... at a certain point» she added with irony, «when I saw the ScAR email, I felt sick: No... oh my God... again?! Still ScAR?».

The difficulty in reconciling a project such as ScAR with the current teaching structure and school organization was an expected criticality, even if the occurrence in tangible cases highlighted more clearly the possible dynamics to be addressed in applying the methodology. Critical situations, however,

concentrated in the programmes that were the most consistent in terms of time required and quantity and complexity of the activities, therefore in the programmes where the methodology, also thanks to the availability of the teachers, has been experimented with particular intensity and concentration of time, or, otherwise, in schools with particularly fragile users. At the end of the project we can say that reducing the activities or diluting them over several school years would certainly have facilitated the task of those teachers - key to the research - who enthusiastically and proactively joined the more substantial teaching projects and who were therefore more engaged. On the other hand, an effective choice was the possibility for teachers to establish their class' level of involvement, adhering to the activities defined as "open" with an autonomous programming or starting a more demanding programme, in direct collaboration with the team, as a "pilot class". This has allowed many teachers to also contribute to the project with a more contained contribution and compatible with other teaching choices and with specific programming needs. It should be noted that the call for funding required the work to be concentrated over two calendar years, however staggered with respect to the school calendar; consequently 95% of the activities with the schools were condensed into a single school year. Subsequently, also due to the problems caused by the COVID-19 pandemic, the research was extended by a third year which was, however, mainly dedicated to dissemination activities, re-elaborating the experience and launching related activities. In light of these constraints, promoting extensive experimentation - even if in a short time - was effective in order to develop a set of good practices that constitute a repeatability format that is wider, clearer and more adaptable to the many and different needs of schools.

Response to expectations

In drawing up a summary of the overall assessment of the project's results, starting from the statements from the teachers, it may be useful to remember the expectations recorded during the start-up phase at the kick-off meeting.

Among the expectations of teachers and school heads who completed the first meeting questionnaires at the time of joining the project, there are:

- knowledge of new technologies and interaction with the university world;
- the development of local pedagogy;
- an active multidisciplinary for the knowledge of one's own landscape;
- the possibility of reinforcing through improvement some activities already started in the school, especially in the field of innovative technologies;

- interaction with others in the local area;
- the possibility for students to gain an alternating school and work experience;
- possible in-depth analysis of theoretical arguments in real situations.

Downstream of the process, in the light of the activities described and the conclusions collected through the final consultations, we can say that these expectations have on the whole been satisfied. At the end of the experience, all the teachers who participated, delivered papers and presented reports, stated that they are in fact satisfied. Some, in the interviews, amplified the answer on this point, providing a synthetic judgement: «I am wholly satisfied with the experience - one secondary school teacher told us - it interested me despite being demanding. I hope to repeat other experiences of this type and I hope that the Politecnico itself can propose some. In fact, this type of experience» added the teacher, «can open up tangible and, at the same time, propulsive visions for the children of their real life and experience». In the final report of another teacher, in the entry “Overall assessment” we can also read: “Very positive value of the proposed activities, which lent themselves to being developed in a workshop and in an inclusive manner, and which have allowed us to open significant spaces for reflection”. A primary school teacher who at the beginning of the experience was very interested but a little hesitant, when interviewed at the end of the project finally told us (also referring to a colleague with whom she collaborated): «As a teacher we must always have the enthusiasm to try new things and learn, and in the end we are happy: because we are really satisfied. Then we said: If we want to teach children to face even a difficult thing and that it doesn't matter if they can't do it, then we must be the first to believe that!».

We could then report numerous other interesting observations by the teachers, however the arguments put forward would be similar, instead, in conclusion, we would like to mention some statements from the interns who found themselves as part of the team and therefore to work closely with their teachers. Being to all intents and purposes students, albeit university students, the interns considered the project from a special standpoint, reflecting from a professional point of view but at the same time also related to an educational programme. «I am very satisfied - wrote a three-year degree programme student - to have carried out this internship from among all the other choices available to me. I was in a team that I felt comfortable with. From the beginning I knew that it was not the classic internship in an architectural firm but this did not stop me, indeed it intrigued me even more». «It was very interesting» said another intern, «to have taken part in a Politecnico di Milano

research activity and to have had the opportunity to contribute to some of its activities. I have had the chance to try my hand at numerous different tasks, which have let me increase my knowledge. In particular, I was able to observe the perception that children of different ages develop regarding the urban environment in which they live, their ability to portray the city and their interest in everything that can be considered cultural heritage in the peripheries and in the importance of its protection. I am convinced that this experience will be useful to me in the continuation of my university studies and my future professional career». The variety of activities in which it was possible to involve the interns is also positively found in other reports: «I consider very positive - wrote for example a student - the variety of tasks that have been entrusted to me: they have been a reason for growth for me, allowed me to develop the ability to face different tasks and to grow a lot in knowledge and skills». Another student who, as part of ScAR, created her own articulate personal internship programme and then also a degree thesis, wrote at the bottom of her report “With the promise of using as an example what is already there to better realize my future and present ideas, I sincerely thank you for having listened to my ideas, even if unorthodox for my study programme”. Another student, who has since graduated, contacted her ScAR team representative to inform him, after some time, of her satisfaction with what she had learned: «I am writing to you because I am pleased to tell you that the internship experience with ScAR during my three-year degree programme is giving me the opportunity to work on a similar project [...] in short, the internship at ScAR is paying off».

The numbers of ScAR

To conclude this examination of the qualitative considerations that can be made at the end of the programme, it may also be useful to propose a brief overview of the “project numbers”. Taking stock of the research’s “numbers”, we can briefly say that ScAR covered 22 classes within the 7 partner schools, to which were added 27 classes from other cities, distributed in 7 Italian regions, which contributed to the research participating in the contest promoted by the partner project PoliCultura and following the special track dedicated to ScAR themes. Overall, the research has thus reached over 750 students and more than 50 teachers on three school levels from primary to upper secondary school. In addition to those of the schools, more than 400 university students were involved through the launch of ad hoc teaching contexts within

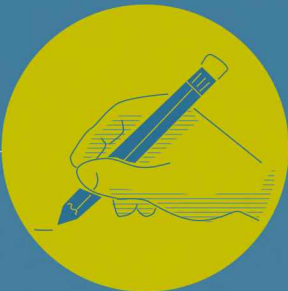
6 different Politecnico di Milano programmes and 7 Architecture and Urban Planning programme interns.

Overall, the classes created 37 different teaching projects, of which 5 were conducted by the research team as a pilot action and 24 took shape within PoliCultura, the remaining projects were configured as “open activities”.¹⁷ During the teaching projects, the classes carried out at least 20 different types of activities proposed by the experts in the training courses, of which about half involved the use of communication technologies. Through the teaching projects, 5 digital applications (2 multimedia guides, 2 game applications for mobile devices, 1 Digital Atlas of Memories and teaching projects) were created and made available to the public, on platforms external to the project, to which are added 25 new collections for the digital museum of the Ecomuseo Milano Sud and over 30 between digital narratives and map storytelling.

Starting with 11 initial partners, ScAR has grown in its programme collaborations with further 8 partners in the public and private sector. The research also resulted in 5 spin-off projects with different partners in Italy and abroad. To disseminate both the project and the methodologies, 8 public events were organized, in addition to the presentation of the project at 8 international conferences and the creation of 10 publications, 3 of which in open access.

This sequence of figures certainly cannot convey the complexity of a lengthy and well-structured process, however if you read it alongside the reflections of the persons involved and shown in the pages preceding this summary, it can give an idea of the range of action of a research which, even if with limited means, has managed to monitor many heterogeneous subjects, to activate the latent resources of an area on the sidelines and to extend the scope of its actions even beyond the envisaged borders.

17. See chapter two.



+20
different activities



5
pilot activities

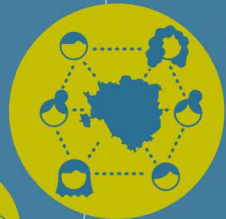


13
educational projects



24
PoliCultura-ScAR projects

the numbers of ScAR



11
partners in the first phase



8
new partnerships



8
local events



7
partner schools



18
schools from 8 regions



6
university courses



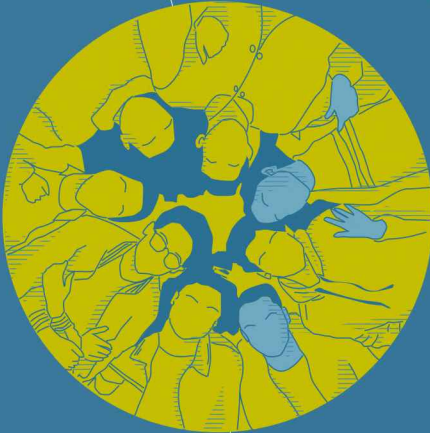
+50
teachers



5
digital products



+ 150
features mapped in
the "Atlante digitale delle memorie"



+ 750
students



49
classes



10
publications



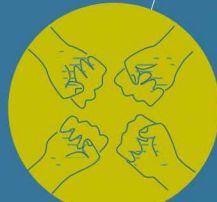
8
conferences



5
spin-off
projects



7
interns



12
researchers
& professors



3
universities



2
thesis



4
collaborators



FINAL CONSIDERATIONS

When initiating this project, we highlighted how the Italian and European guidelines on cultural heritage and landscape education throw up some important questions which institutions, as well as the educational community more generally, now have to provide answers for. The fundamental choice underpinning the “*Scuola Attiva Risorse*” [“School Activates Resources”] project to operate in marginalised areas led to a focused reflection on the specific qualities of an educational action concentrated on local heritage and geared towards territories apparently lacking in cultural heritage and landscape values. Consequently, the research developed along two tracks: on the one hand, launching an experimental action in pursuit of answers to the new challenges posed by heritage education, and on the other, specifically investigating approaches and methodologies suited to operating in ordinary or fragile contexts with a wide-ranging action, rooted in a participatory process and oriented towards education on citizenship, intercultural and intergenerational exchange, protecting common assets, and developing widespread demand for high-quality landscapes.

At the end of the experiment, the research questions which initially sparked the project can be reformulated in a more conscious way, strengthened by the multitude of contributions provided by the various actors involved and the shared experiences of the teams and participants. As such, these considerations in particular retrace the crucial steps of the reflections developed on the theme of cultural heritage education, touching upon some particularly important issues such as how to define the subject of educational actions, the potential role of schools, the possible contribution of universities and research, the strategic role taken on by processes of representation within the actions and, finally, the connections between the experiment carried out and the current and future scenarios of research in the field.



Presentation poster of the project for a research centre for puppetry in the Stadera district realized by a student from the "Architectural Design Studio 1" of the Bachelor's Degree in Architectural Design. During the course, carried out remotely during the COVID-19 emergency, Atelier Carlo Colla e Figli simulated the client. (Drawing by Alice Dell'Acqua).

The first set of considerations concerns defining the subject of the actions in the field of heritage education and the role that schools and universities are called upon to play in constructing practices and methodologies. In the context of European culture, the inextricable link between heritage and cultural landscapes has long been clarified, much as it seems to be established – at least in theoretical terms – that the familiarisation and promotion actions that are traditionally the preserve of heritage and contexts considered exceptional should be extended to instances of local and intangible heritage, as well as to everyday places and even deteriorated landscapes. ScAR as an experiment sheds light on how heritage education can effectively find a place in an area filled with contradictions, where aspects of deterioration and fragility coexist intimately with wellsprings of unexpressed potential. By working together, teachers and researchers have shown how we can guide young people of varying ages along their journey as they learn about, interpret and communicate

about tangible and intangible heritage, drawing upon multiple sources of inspiration and focusing on areas which initially appear to be of no interest, as those around schools often seem to be. The educational projects developed during the research demonstrate a great many things: that interculturalism can be fostered by starting from the shops on our local street; that we can change our perception of a marginalised neighbourhood by looking at the graffiti on the walls of underpasses and abandoned buildings through new eyes; that we can work with young people to craft a professional tourist trail along unexpected routes on the outskirts of the city. They even show that it is possible to use games to encourage teenagers to take a closer look at where they live, interpret it, reflect upon their future, and much more besides.

If, as suggested by the current guidelines, in the near future we intend to undertake a systematic, structural approach to cultural heritage education that is inclusive of all contexts, it is crucial for schools – as the main educational agency, their reach more extensive than any other – to accept a central role in the process. Indeed, as the ScAR experiment once again confirms, schools are not just rich in human, cultural and professional resources, but they also bear within them a vast amount of design potential that is constantly seeking out contexts in which to be expressed and recognised. The schools involved in the project have shown that they wholeheartedly embrace the push for an approach to heritage and landscape education that is experimental, innovative, technologically up-to-date and open to external inputs. The teacher wholeheartedly embraced the spirit of putting together field work in conjunction with experts, set in the context of a wider process, and took great pains to overcome the difficulties involved in reconciling their schools' traditional organisational structure and consolidated operating methods with the demands of an approach to teaching that is strongly oriented towards design, transdisciplinarity, and learning about the local area in the field. In fact, the teachers made a significant contribution to the development of a *modus operandi* very much in its infancy, in many cases also helping to define it by actively participating in methodological reflections. The ScAR process also revealed how, with adequate support, schools can effectively take on the role of territorial hubs capable of connecting students, local communities, institutions and actors both public and private. However, in order for experiments such as these to be translated into widespread practices and develop within a process that is capable of evolving without crystallising into inflexible procedures, the primary resources – namely the design capabilities and proactivity of the teachers involved – need to be acknowledged, stimulated and nurtured. It is also important for the school community to be given more opportunities

– in much the same vein as the scientific community – to communicate and share experiences, results and reflections so that the work of individuals can become elements of a shared heritage. Much as suggested by the ScAR experiment, universities can play an important role in this broader process, in the spirit of the third mission and with a view to building collaborative and responsible research. In addition to training professionals who can simply work within the framework of processes, the academic world can – in this case as in others – drive and support the creation of the processes themselves, especially in pursuit of an open and experimental approach to methodological investigation. Academia can also bring together and centralise results, making shared solutions available to all, facilitating connections between different experiments and situations, and promoting participatory dynamics, including between different kinds of actors. In doing so, it would provide a catalyst for the energies of the school and local communities, ultimately resulting in shared practices and pluralistic reflections. In doing so, it would become possible to include the general public – and schools in particular – in a scientific research process that concerns the community, the territory and education, not merely as objects of study, but indeed as actors in their own right, with their own specific skills and viewpoints to contribute.

Downstream in the process, some consideration should also be dedicated to certain transversal aspects that emerge from the methodological survey itself. In particular, the experience gained within the project and the significant part played by the representation processes within the educational actions lead to questions about the role that constructing new representations can play more generally in the context of heritage and landscape education. The ScAR experiment as a whole could be seen as an articulated process of collecting and sharing knowledge and interpretations about a given territory and the cultural values that it encapsulates, and thus as a process of constructing and exchanging representations. This theme goes hand in hand with another one, intimately related to the first, namely the role that new technologies can play in this context. Over the course of the research project, the use of digital tools – always in conjunction with analogue and manual activities, as well as the direct experience of the places in question – played a significant role. This offered teachers the opportunity to interact with new technologies, motivated students to participate, acted as a lever for peer education and, last but not least, offered a quick and flexible medium for sharing information. On the whole, it can be said that the targeted use of ICT made it possible to develop a participatory process for the promotion of the cultural landscape in which digital tools – accessible and managed with bottom-up development logic – does not merely

serve as a means of communication, but instead becomes a vehicle for education, community building, and critical knowledge of the territory.

A final series of considerations concerns the connections between the research action described, the European and Italian guidelines, and the strategic indications for future research established by the European agenda.

When compared with the *Piano nazionale per l'educazione al patrimonio culturale* [National Plan for Cultural Heritage Education], the project reveals a substantial degree of congruence with the vision put forward by the MiBACT (now the Ministry of Culture) at the time. To summarise the main characteristics with reference to the indications contained within the Plan, it can be said that the ScAR project proposed and tested in the field a system of heritage education that is capable of including a multitude of subjects (schools, administrations, institutions, museums, families, associations and private organisations) in concrete actions geared towards building knowledge, communication and tourist promotion of elements of cultural heritage, particularly the more fragile and lesser-known ones, in this case hidden in the neighbourhoods on the urban outskirts. The project also supported teachers in their role as creators and facilitators of innovative educational programmes by providing training courses, tools, replicable work formats and experimental approaches to collaboration between schools and universities. The activities, based on the paradigms of project-based learning, authentic learning and peer education, involved all levels of education, from primary and secondary school students all the way to young people on vocational training schemes and university students, and they therefore offer a wide-ranging overview of the practices at play. In line with the MiUR guidance on digital development in the educational field – as expressed in the *Piano nazionale per la scuola digitale* [National Digital School Plan]), the ScAR project offered young people the opportunity to try their hand at producing digital content and architecture, supporting teachers and younger students in the conscious use of technologies for sharing and communicating about elements of cultural heritage.

All these characteristics also demonstrate how the project effectively fits into the European strategy on cultural heritage for the 21st century. Indeed, this strategy identifies cultural heritage as a key factor in refocusing European societies on a firm foundation of intercultural dialogue and respect for diversity and different identities. In keeping with this vision, ScAR's actions all followed the key guideline of an inclusive approach, namely by involving citizens in training on how to identify, familiarise themselves with, protect and promote the heritage that they are stewards of, as well as by drawing

the attention of the school community (and beyond) to its immediate surroundings, within the context of the students' everyday lives, thus helping to develop a sense of belonging in young people and stimulating their collective responsibility towards their shared cultural heritage. The actions developed within the project made the cultural heritage more accessible not only to the schoolchildren, but in many ways to their communities as well, highlighting its role as a vehicle for intergenerational and intercultural dialogue, for peace and tolerance. Again in accordance with European strategies, the project also provided inspiration on how to use innovative techniques to present cultural heritage to the public, as well as on incorporating heritage education more effectively and efficiently into school curricula. Finally, the research investigated the possibility of bringing together multiple facets of a single issue – namely landscape education, education on slow cultural tourism, and the development of tourism in areas off the beaten track – in response to calls to consider heritage within the framework of policies for the development of sustainable tourism, in line with European strategies for this century.

More generally, the research strived to follow the Sustainable Development Goals established by the United Nations' 2030 Agenda, such as quality education (goal 4), reduced inequality (goal 10), and creating sustainable cities and communities (goal 11). The set of practices and methodologies set out by ScAR effectively demonstrated how well-suited heritage education is to an inclusive approach to teaching, which helps to bring down school dropout rates and to address the results of school segregation, whilst also offering ideas on how to support inclusivity during an extended crisis such as the one brought about by the COVID-19 pandemic. Heritage education and education on sustainable development were also incorporated into the project, guiding the young students through the promotion of common assets and prompting them to care for the landscape in the locations of everyday life and in deteriorated areas, but also encouraging them to lead sustainable lives and train younger generations to appreciate multicultural environments and to active citizenship.



A primary school student draws the landscape from an urban scale model developing the concept of map and zenithal projection.





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APPENDIX

Summary of the educational projects developed during the School Activates Resources project

This section collects a summary description of the educational projects of the classes during the school year 2018/19. It offers a first picture of the many different possible interpretations of the methodology proposed by the ScAR project.

Primary and lower secondary school Arcadia – Milan

Class 3B primary School Feraboli

“Atelier Colla e Figli: Il mondo magico delle marionette”

[Atelier Colla e Figli: The magical world of marionettes]

Teachers: E. Cacciatore, A. P. Gellini, P. Scala

A study of the local tangible and intangible heritage related to the tradition of the puppetry company “Carlo Colla and Sons”, which has the historical atelier in via L. Montegani. The children visited the theatre and interviewed the troupe. Thanks to this experience, students elaborated the stories, drawings and plots for a puppet show that takes place in their neighbourhood Gratosoglio.

Activities: interviews with witnesses and experts, digital storytelling, video making.

Class 3D lower secondary school Arcadia

“Da Gratosoglio allo Stadera” [From Gratosoglio to Stadera]

Teachers: G. Appolonia, M. C. Corvi, P. Ghinatti, M. T. Tamburini

An articulate urban landscape interpretation activity, between its cultural contents and transformations, along an itinerary that connects Gratosoglio and Stadera neighbourhoods. The students’ reflection began by analysing the familiar landscape of home-school paths through the drafting of individual and collective mind maps. The journey in the neighbourhoods and a documentation activity led to the design of geo-tagged game itineraries for children (urban game) and the realisation of a digital map with the support of the “Atlante digitale delle memorie” platform. The process enabled the students to perceive their neighbourhood differently,

discover the surrounding territory, build a bridge between the familiar and the nearby but less known areas, and share their discoveries with peers through technology and mobile games.
Activities: journeys in the neighbourhood, interviews of witnesses or experts, mind mapping, landscape drawing, urban geogames, atlante digitale delle memorie.

Primary and lower secondary school F. Filzi – Milan

Class TEACCH lower secondary school A. Toscanini

“La settimana della classe TEACCH” [The week of TEACCH class]

Teachers: V. Chatzipetros, R. Salbe

The students of the TEACCH class (Treatment and Education of Autistic and Communication Handicapped Children) tell about their typical week at Toscanini lower secondary school, a reference point for children affected by the autistic syndrome. The project documents an essential reality of integration as an expression of the cultural and social value of its territory. The narration will be visible on page “La nostra storia” [Our story] on www.policultura.it.

Activities: digital storytelling, video making.

Classes 1D and 3D lower secondary school A. Toscanini

“Vit@social”

Teachers: A. Alletto, E. Bonaidimani

Reflection didactical process on the territory and its transformations centred on the Fondazione Prada area: have you ever been in that area? What is new in the neighbourhood? What was there before? The theme of landscape is associated with social media, their use, strengths and weaknesses. The reflection becomes a cue for realising a theatrical show in collaboration between students (script by the class 3D, dramatisation by the class 1D).

Activities: video making, sharing via social media, theatre workshops.

Classes 3A, 3C, 3D and 3E lower secondary school A. Toscanini

“Progetto Murales” [Murales Project]

Teacher: T. Bramati

Mural project for walls delimiting industrial or degraded areas, in particular for the Porta Romana railway station area. The idea is to change the students’ perception of familiar places as degraded or unattractive, stimulating precise observation and suggesting creative solutions for urban regeneration.

Activities: landscape drawing, urban regeneration projects, atlante digitale delle memorie.

Class 1E lower secondary school A. Toscanini

“Quattro passi per il Vigentino” [Walking in Vigentino]

Teacher: M. T. Bagnato, V. Del Pizzol

A Didactical process to know the neighbourhood and deepen history and geography topics. The children documented historical topics starting from the local heritage of Vigentino from the medieval age to today. Students analysed the monasteries, the abbeys and the testimonies of the rural past of the area, until understanding the contemporary city through the analysis of the route of tram n.24 along via Ripamonti, the backbone of the neighbourhood. The students then shared their work, first with itinerant lessons in the neighbourhood or inside the tram, then through the “Atlante digitale delle memorie” platform.

Activities: journeys in the neighbourhood, peer learning, atlante digitale delle memorie.

Class 2B lower secondary A. Toscanini

“Vigentour – cerca il tuo futuro nel Vigentino” [Vigentour – Find your Future in Vigentino]

Teachers: B. Cagnoni, D. Manenti, V. Chatzipetros, M. Bagnato

An articulated activity of interpretation of the urban landscape, its cultural contents and its transformations, along an itinerary that connects the school to the headquarters of Fondazione Prada. The drawing of mind maps of the daily experience of the landscape, the routes on the territory, the landscape analysis workshops and the extensive documentation work have led to the design of geolocalised game itineraries for peers (urban geogame) and the realisation of a digital map with the “Atlante digitale delle memorie” platform. The arrival point of the process was a cue for a reflection on the relationship between the studied area and the rest of the city with the workshop of landscape reading performed inside the tower of Fondazione Prada. The design of murals for the Porta Romana rail yard wall, which marks a barrier with the northern side, concluded the experience by opening to the theme of urban regeneration. The class then experienced a series of urban design workshops. The development of a “logbook” to tell, observe and understand landscapes, built and open spaces, has allowed identifying the factors of criticality and degradation in which to converge through the project proposal, a different way of the use of the area for a better urban space liveability.

Activities: journeys in the neighbourhood, landscape drawing, urban regeneration projects, landscape reading workshops at Fondazione Prada, peer learning, interviews with witnesses or experts, urban geogames, atlante digitale delle memorie, digital mapping, video making.

Class 3C lower secondary school A. Toscanini

“Alla scoperta del quartiere Vigentino” [Discovering the Vigentino Neighbourhood]

Teachers: C. M. Mazzone

An educational path to learn the history of the neighbourhood through mapping with the “Atlante digitale delle memorie” platform, and through the collection of interviews and historical images with the aim to compare the past and the present.

Activities: interviews with witnesses or experts, atlante digitale delle memorie.

Primary and lower secondary school Via Palmieri – Milan

Class 3E and 3F lower secondary school S. Pertini

“Zona 5.0!! La periferia capovolta” [Zone 5.0!! The outskirts turned upside down]

Teachers: M. C. Crea, A. Misitano, S. Russo.

A journey in the landscape about the students’ everyday places of life and the cultural landscape of the peripheries. The tangible and intangible heritage has been considered in all its forms: from architecture to services and infrastructures, from spontaneous artistic manifestations, such as graffiti and music video clips, to the cinema. The contents were then reworked with digital map storytelling and shared through the “Atlante digitale delle memorie” platform, creating a digital map of the streets of the Stadera and Gratosoglio districts..

Activities: atlante digitale delle memorie, map storytelling.

Class 2A primary school C. Battisti

“Dal mondo allo Stadera: tutti i colori dell’artigianato” [From the world to Stadera: all the colours of craftsmanship]

Teachers: M. A. Picillo, L. Tarricone

An articulated itinerary of landscape interpretation around the school guides children to discover the craftsmanship culture in their neighbourhood and their families’ countries of origin, building a bridge between generations, territories and cultures. The children mapped the hand-craft activities in via Montegani, carried out video interviews with locals, made a model of the

street and designed play areas for open spaces, following a path to discover the intangible cultural heritage and learn the standard languages of cartography and architectural representation. *Activities: journeys in the neighbourhood, landscape drawing, neighbourhood models, urban regeneration projects, interviews of witnesses or experts, atlante digitale delle memorie, video making.*

Upper secondary school IPSC W. Kandinsky – Milan

Class 3B (in collaboration with 3A)

“Questa città che non finisce mai. La street art racconta la Zona 5” [This City that Never Ends... Street art illustrates zone 5.0]

Teachers: A. De Blasi, M. Introvini, M. Rizzaro, A. Rizzo

The project assumed the peripheries as “the fertile landscape in which needs of expression and stories of teenagers can have a place”. Starting from a reflection on the reality of Gratosoglio and the attitudes and interests of students from the course of graphics, the didactic process focused on the theme of street art. The students immersed themselves in the neighbourhood, documented the expressive activities of the school (the murals realised by class 3A), and collected materials and testimonies on the territory. The students experienced the different phases of the documentation work and then concentrated on the interpretation and restitution through the creation of poetic texts, the elaboration of images, the video editing, and finally the development of digital storytelling that brings out, alongside fragility, the less known and hidden values of a peripheral neighbourhood. The narrations will be visible on page “La Nostra Storia” on the website www.policultura.it.

Activities: journeys in the neighbourhood, interviews of witnesses or experts, digital storytelling, video making, digital image editing.

Class 2A

“Leggere il paesaggio urbano con il disegno dal vero” [Reading urban landscape through life drawing]

Teachers: A. De Blasi, F. Cannata, A. Rizzo, A. Franzone

An educational activity through photography, maps reading, and life drawing, connected with an activity on the landscape of “L’infinito” poem by Leopardi. The project has been articulated in a sequence of tours around the Milanese territory and to Fondazione Prada, accompanied by activities of photographic survey and life drawing in places with a strong sense of popular tradition and most recent transformation.

Activities: landscape drawing, landscape reading workshops at Fondazione Prada.

Upper secondary school IIS C. Varalli – Milan

Classes 3CT, 3DT, 3ET, 3CL and 4CL

“Seguitemi, prego...” [Follow me, please...]

Teachers: T. Caputo, A. Cristiani, I. Fabrocile, D. Radrizzani, A. Rutili, S. Zanella

An articulated educational path of cultural landscape interpretation and communication with advanced technologies. The students’ reflections started from the familiar landscape of home-school paths by drawing individual and collective mind maps. The following explorations were accompanied by analysis, discussions, mapping, sound recordings, collection of photographic and video contents and a 360° camera survey campaign. The documentation phase, complemented by interviews with experts and witnesses, provided the content for communication aimed at peers and citizens. Students developed two interactive tourist itineraries in two languages with izi.TRAVEL, a free and intuitive CMS (Content Management System). The

“Atlante digitale delle memorie” platform then allowed to build a digital route map. Finally, as part of the *alternanza scuola-lavoro* project, students organised a public presentation and a launch event of the digital products with guided tours of the area.

Activities: journeys in the neighbourhoods, mind mapping, peer learning, interviews with witnesses or experts, mobile tourist guides, atlante digitale delle memorie, virtual tours in the cultural landscape, sharing via social media.

PoliCultura and ScAR

Since 2018, the ScAR project has collaborated with “PoliCultura”, a national digital storytelling contest that proposes to schools from all over Italy to work on their local cultural heritage. The list shows the works of the classes, which some were already partners of the ScAR project, while others from eight different Italian regions (Campania, Lazio, Lombardy, Molise, Piedmont, Apulia, Abruzzo and Sicily) became aware of the research through the special track dedicated to ScAR proposed by “PoliCultura”. The titles suggest the variety of the different interpretations of the theme performed by the schools.

2019 edition

- **Dall’Inferno ad altri ‘inferni’ – Storie di ordinaria quotidianità. [From Inferno to other ‘hells’ – Everyday life stories]** Class 3B, upper secondary I.S.I.S. Majorana-Fascitelli (Molise)
- **Il Santuario della Beata Vergine Addolorata di Rho [The Sanctuary of Beata Vergine Addolorata in Rho]** Classes 3F and 4G, upper secondary Majorana (Lombardy)
- **Li cant dellu Nazzarenu [The songs of Nazzareno]** Class 2AME, upper secondary I.I.S. F. Botazzi (Apulia)
- **Alatri 3.0 e dintorni [Alatri 3.0 and surrounding areas]** Class 2A, upper secondary IIS S. Pertini (Lazio)
- **Un giardino... Brancaccio [A garden... Brancaccio]** Class 3F, lower secondary school A. Pecoraro (Sicily)
- **SCaRamagna – La periferia dei talenti [SCaRamagna – The outskirts of talents]** Class 4B, lower secondary school (Piedmont)
- **Palermo e le sue periferie [Palermo and its peripheries]** Classes 3C and 3B, lower secondary school A. Pecoraro (Sicily)
- **Alfabeto di periferia [Periphery’s alphabet]** Class 2C, lower secondary school Ponteviso (Lombardy)
- **Ponteviso: cuore di megalopolis [Ponteviso: megalopolis’ heart]** Class 3C, lower secondary school Ponteviso (Lombardy)
- **I passi dell’orologio [The steps of the watch]** Class 3ACP, upper secondary I.I.S. F. Botazzi (Apulia)
- **Questa città che non finisce mai... [This city that never ends...]** Classes 3B and 3A, upper secondary IPSC W. Kandinsky (Lombardy)
- **Camminando si fa cammino: andemm a Ulginaa [Walking makes the path: let’s go to Olginate]** Class 3B, primary school G. Rodari (Lombardy)
- **Valorizziamo il nostro quartiere [Enhancing our neighbourhood]** Class 2E, primary and lower secondary school PS Di Guardo – S. Quasimodo (Sicily)
- **(Kataballontes)-Post demolitori [(Kataballontes)-Post wreckers]** Class 3A, military school P. Teuliè (Lombardia)

2020 edition

- **Martina Franca declinata in ARE, ERE e IRE: abitare, vedere, scoprire...** [**Martina Franca declined in ARE, ERE, IRE: living, seeing, discovering...**] Classes 4A, 4B, 4C, 4D and 4E, primary school Giovanni XXIII (Apulia)
- **Al ventiduesimo miglio, sulla via Salaria, Sant'Antimo** [**At the 22nd mile, on Via Salaria, Sant'Antimo**] Class 3D, primary school Giovanni XXIII (Campania)
- **A passeggio tra i Forti di Messina** [**A journey among the Messina fortresses**] Class 3B, lower secondary school Giovanni XXIII (Sicily)
- **Nella nostra scuola, 130 anni fa, si curava il mal della rosa** [**Inside our school, 130 years ago, doctors treated pellagra**] Class 5C, upper secondary I.I.S. M. Bellisario (Lombardia)

2021 edition

- **Tra la gente di Pontevico** [**Among the people of Pontevico**] Class 1C, lower secondary school Pontevico (Lombardy)
- **Io resto qui** [**I stay here**] Class 4C, upper secondary IISS. E. Medi (Apulia)
- **Mazara con i nostri occhi** [**Mazara by our eyes**] Classes 2C and 2D primary school Mazara del Vallo (Sicily)
- **Torino di Sangro: un paese abruzzese** [**Torino di Sangro: a town in Abruzzo**] Class 3, primary school Paglieta (Abruzzo)
- **Caccia ai Tesori di Bussero** [**Treasure Hunt in Bussero**] Class 4A primary school Montegrappa (Lombardy)
- **Con il naso all'insù** [**With the nose on the sky**] Class 1A, lower secondary school L. Fantappiè (Lazio)
- **Una gita a... Il sacro monte di Varese** [**A journey to... Sacro monte di Varese**] Class 4E, upper secondary I.I.S.S. D. Crespi (Lombardy)

All the digital storytellings are available on the PoliCultura website www.policultura.it.

ACKNOWLEDGMENTS

At the end of an extended collective experience such as the project "*Scuola Attiva Risorse. Ricucire il patrimonio disperso delle periferie*", it is difficult to concentrate in a few lines the many reasons of gratitude that bind the authors to the many who have offered their unreplaceable contribution.

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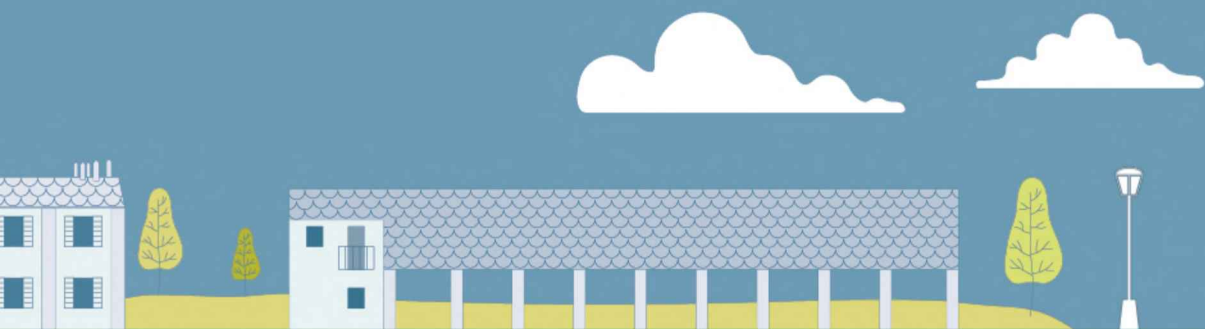
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Heritage and landscape education is crucial to training young people in active and responsible citizenship, protection of the public assets, appreciation of the cultural diversity and intergenerational dialogue. Therefore, it cannot be limited to sporadic experiences and on outstanding heritage and contexts but must be transdisciplinary, inclusive and practicable everywhere.

This book relates the research and action project “Scuola Attiva Risorse” (ScAR), winner of the Polisocial Award that recognizes research for social purposes at the Politecnico di Milano. The text describes an experimental and innovative action delivered within the fragile context of the urban peripheries. This participatory process involved schools, universities, cultural institutions, administrations and private actors in interpreting and enhancing the “hidden” cultural heritage in Milan’s fringe neighbourhoods.



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