

Green Narratives

The communication of sustainability in architecture projects



GROUP 01

Green narratives
The communication of sustainability in
architecture projects

AUTHORS

Francesco Battistoni
Carlo Boschis
Federica Inzani
Federico Meani
Mattia Mertens
Ottavia Robuschi

FACULTY

Michele Mauri
Ángeles Briones
Gabriele Colombo
Simone Vantini
Salvatore Zingale

TEACHING ASSISTANTS

Elena Aversa
Andrea Benedetti
Tommaso Elli
Beatrice Gobbo
Anna Riboldi

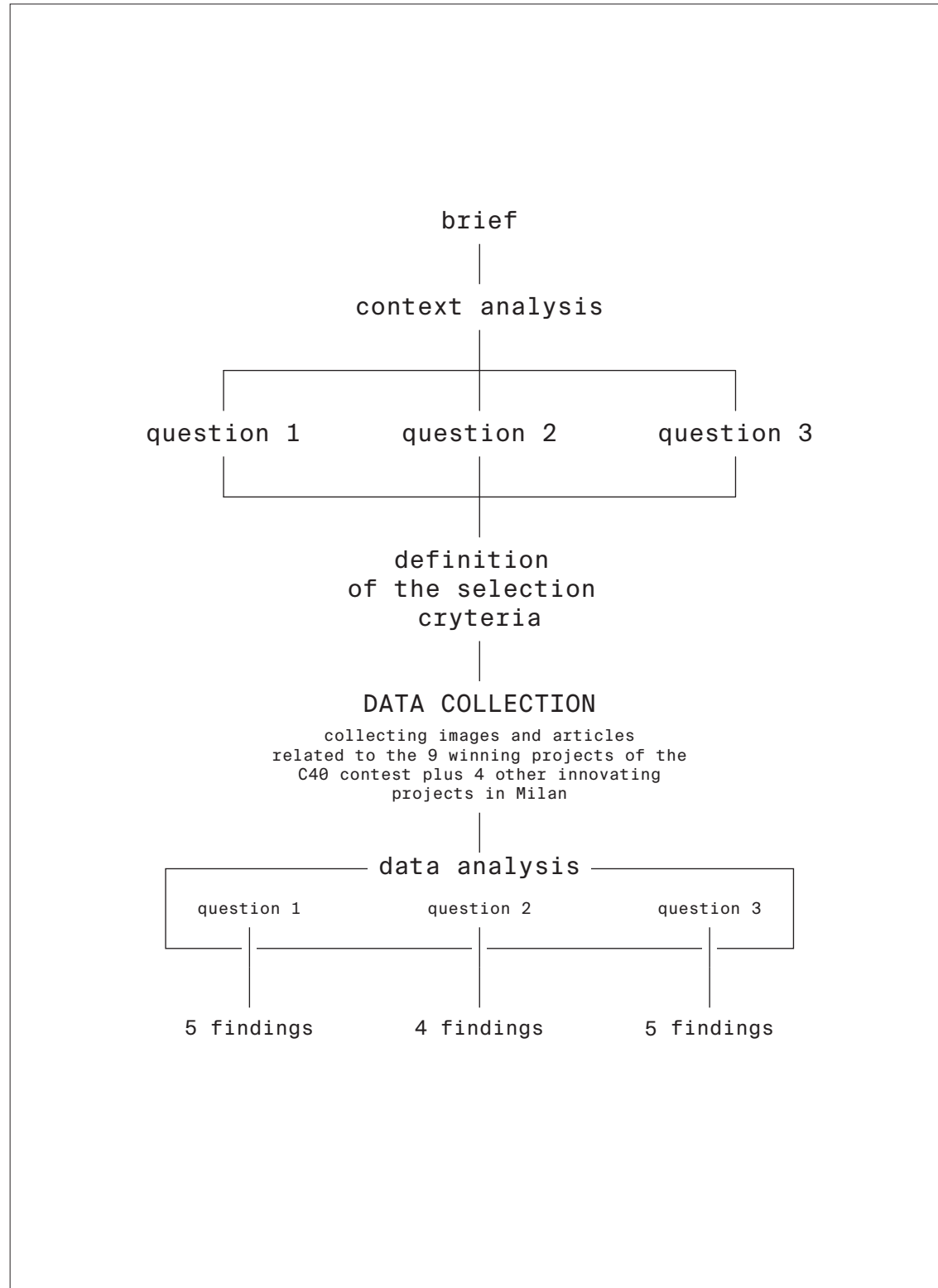
D E N -
S I T Y
G N +



POLITECNICO
MILANO 1863
SCHOOL OF DESIGN

FINAL SYNTHESIS DESIGN
STUDIO Sect. C3
LM in Communication Design
A.A. 2021/2022

PROTOCOLS DIAGRAM



INTRODUCTION

What are we talking about?

In recent years, as the world tries to find a solution to problems such as Climate Change, we have witnessed a surge in the use of concepts like sustainability, smart green or green jobs applied to different fields. The purpose of our research is to understand how these concepts, which we can sum up with the term "green narratives", are used in the field of Architecture, specifically in renderings with the purpose of communicating the projects. We decided to focus our attention on the city of Milan, analysing the winning projects of the C40 contest and then adding different projects, designed for a private context, as a comparison.

CONTENTS

How prominent is green and how in it displayed in renders?

- Quantity of green
- Pre-post renders
- Adding Green
- Palette
- Blended Renders
- Views

What are the accessory elements that support the green narrative?

- What kind of green
- Interacting with green
- Means of transportation

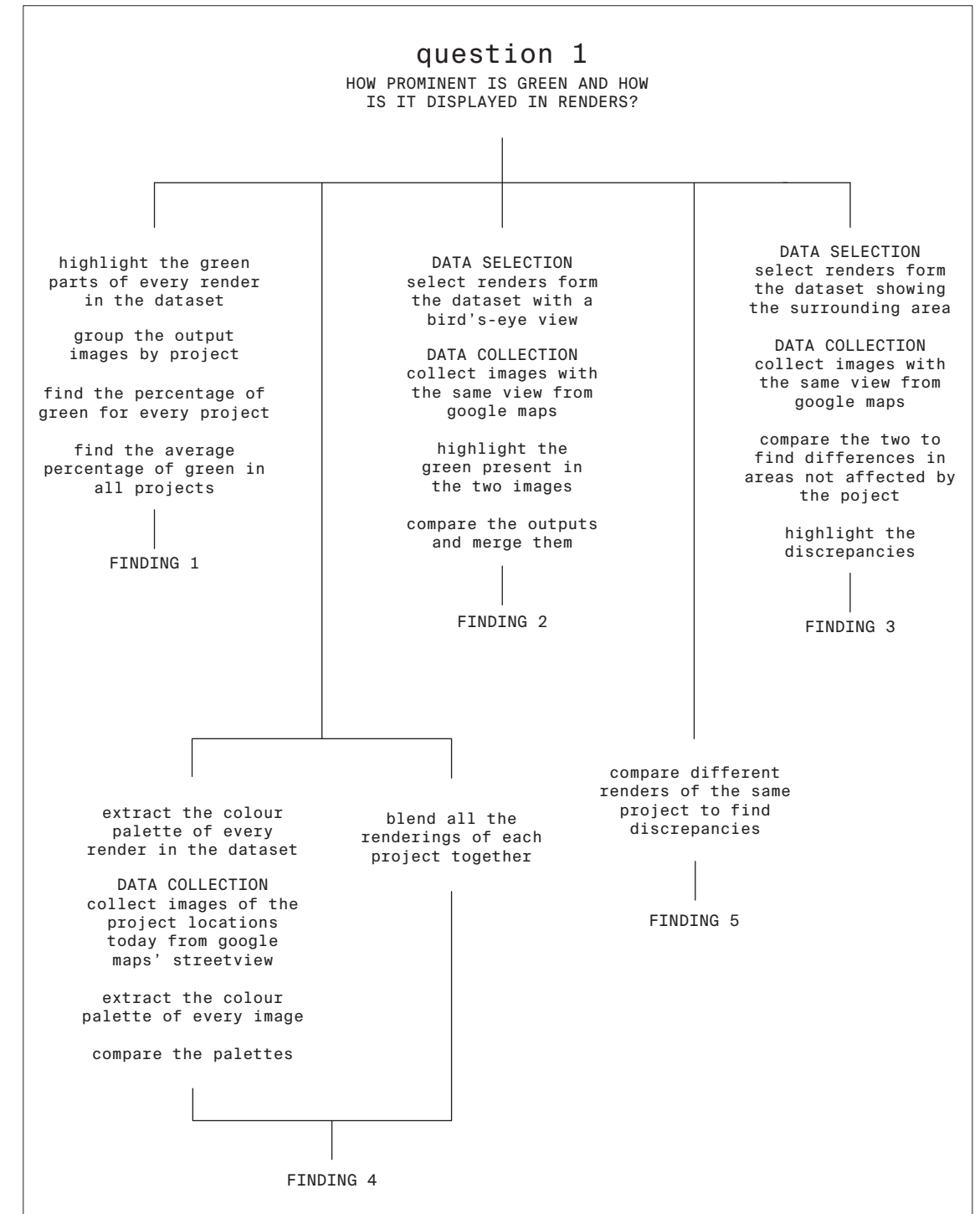
How is green presented while communicating the projects?

- Number of websites
- Most used words
- Use of words in different groups of articles
- Terms for every project
- Presence of every term
- Distribution of the most frequent terms

How prominent is green and how is it displayed in renders?

The first protocol will investigate the presence of greenery in renders and the methods used to display it. With the terms "green" and "greenery", we not only include the green parts of a plant, but rather the vegetation as a whole.

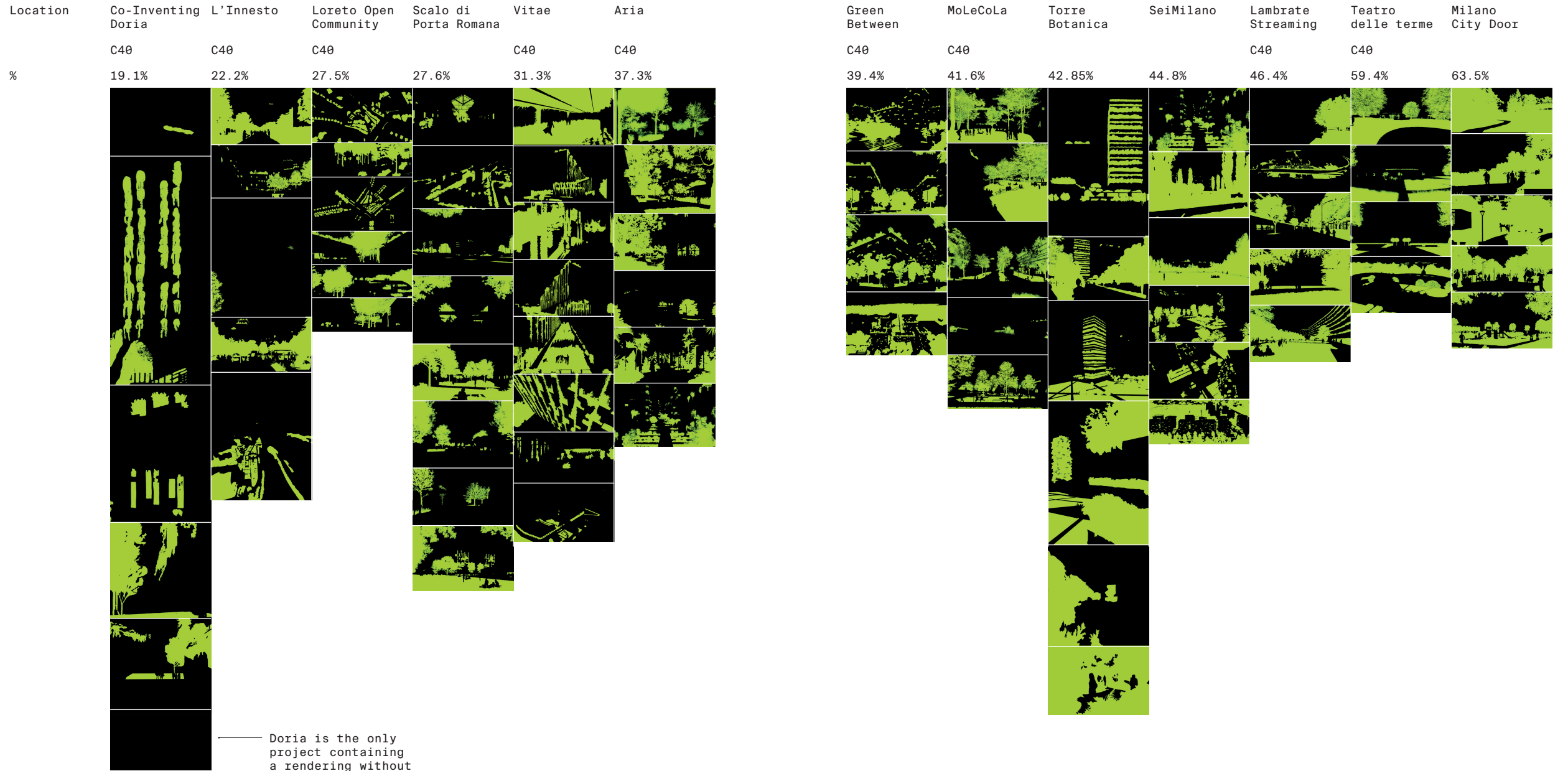
1



Highlight of the greenery present in each render, calculation and comparison of the percentage for every project.

Average quantity of green in renders

38.6%

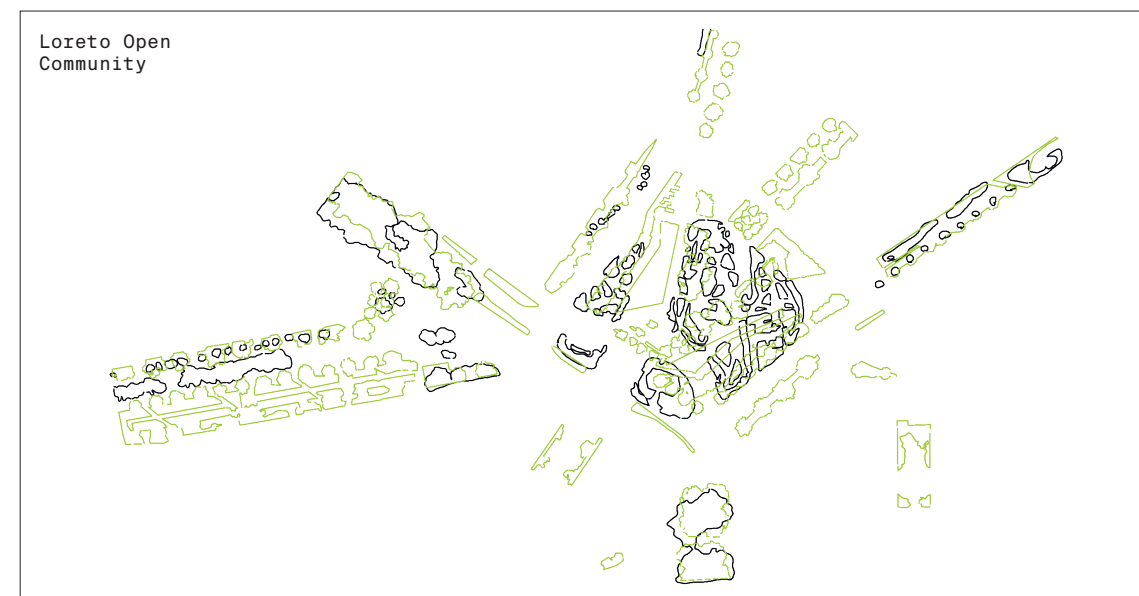
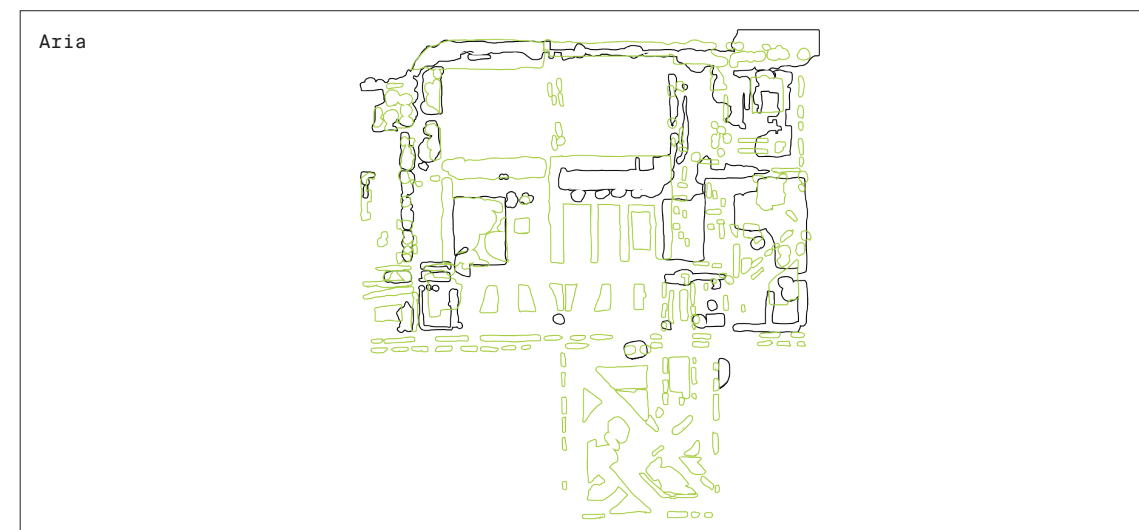
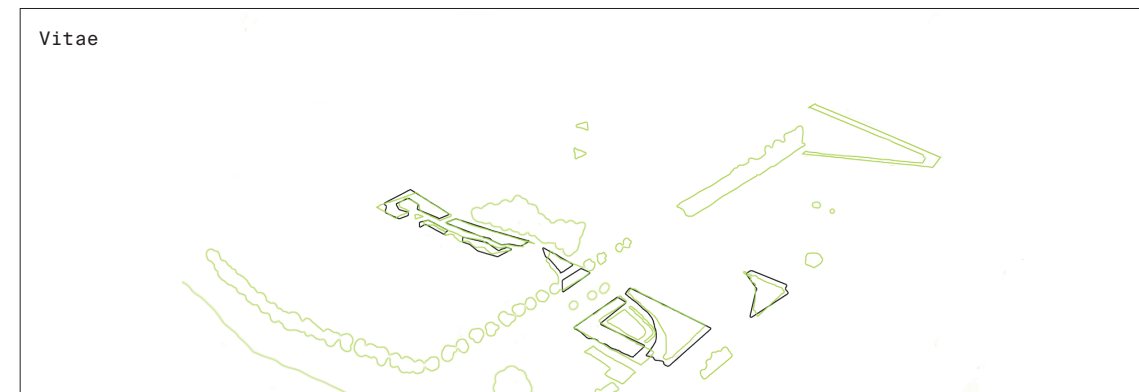
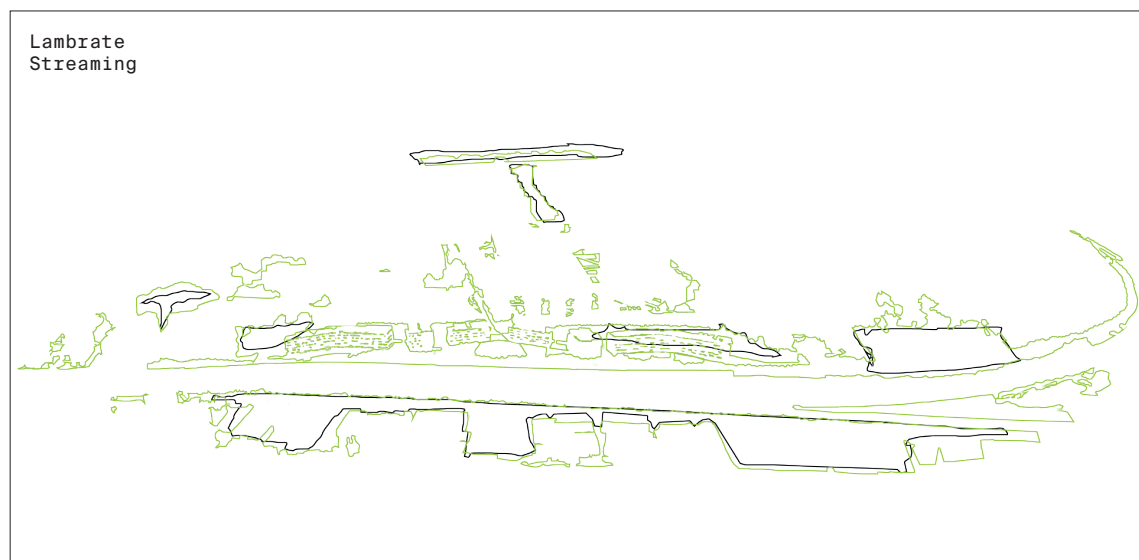
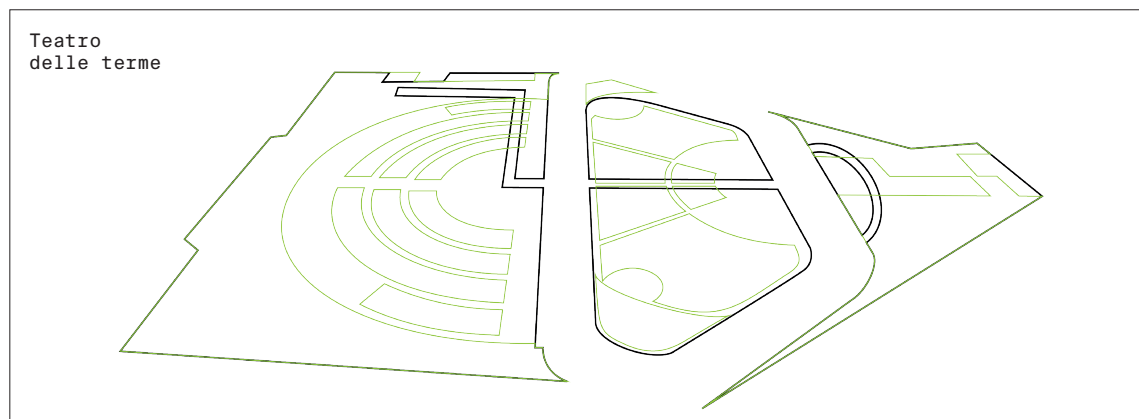
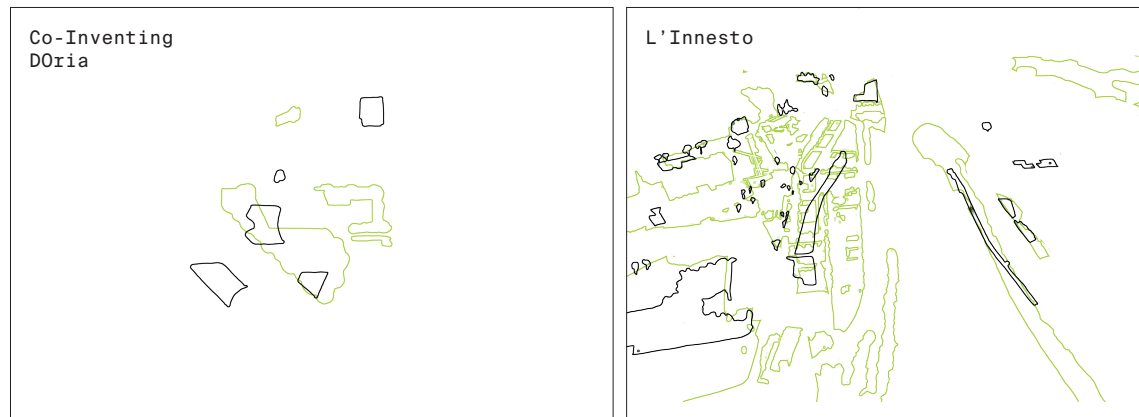


FINDING 1:

Though the goal of the renders is to showcase architecture projects, greenery still takes up a great part of the image. There aren't any notable differences between the projects selected by the C40 competition and those that are not.

Comparison of the presence of greenery before and after the projects.

- Green Today
- Green in projects



FINDING 2:

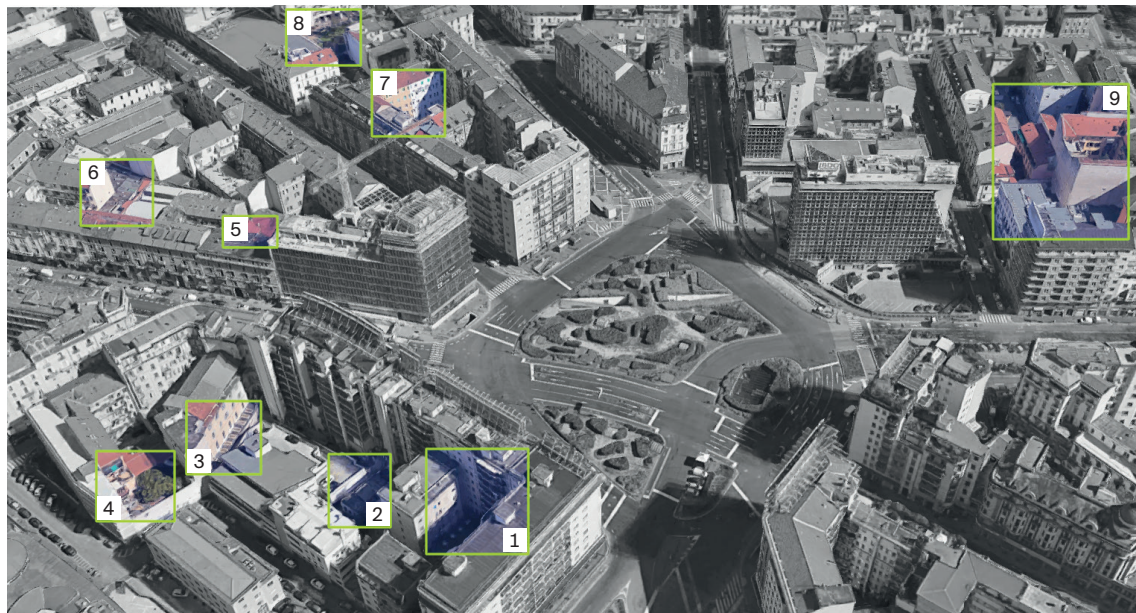
These projects will mainly affect areas where green is already present, converting it from the so-called "third landscape" to a more conscious green blended with the urban context.

Analysis of the greenery depicted in the renders regarding the area surrounding the project, not the project itself, and comparing it to a satellite image of today.

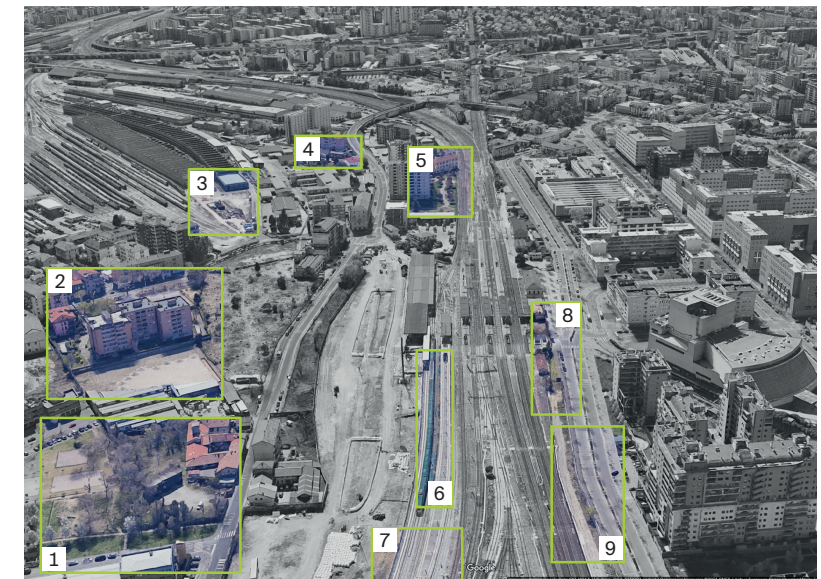
Loreto Open Community Render



Loreto Open Community Real



L'Innesto Real



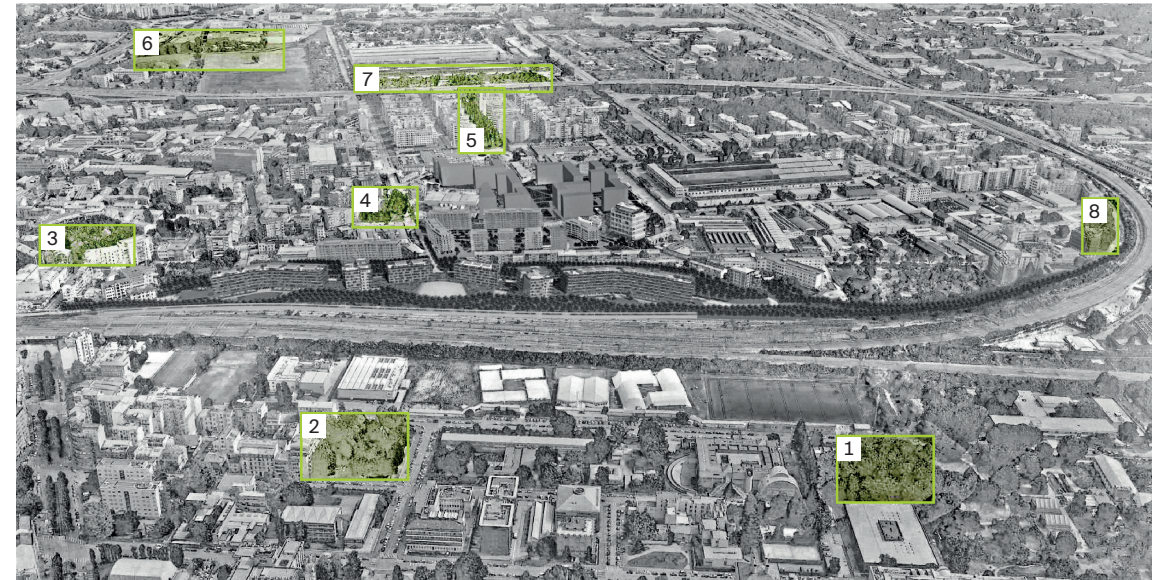
Scalo di Porta Romana Render



Scalo di Porta Romana Real



Lambrate Streaming Render



Lambrate Streaming Real



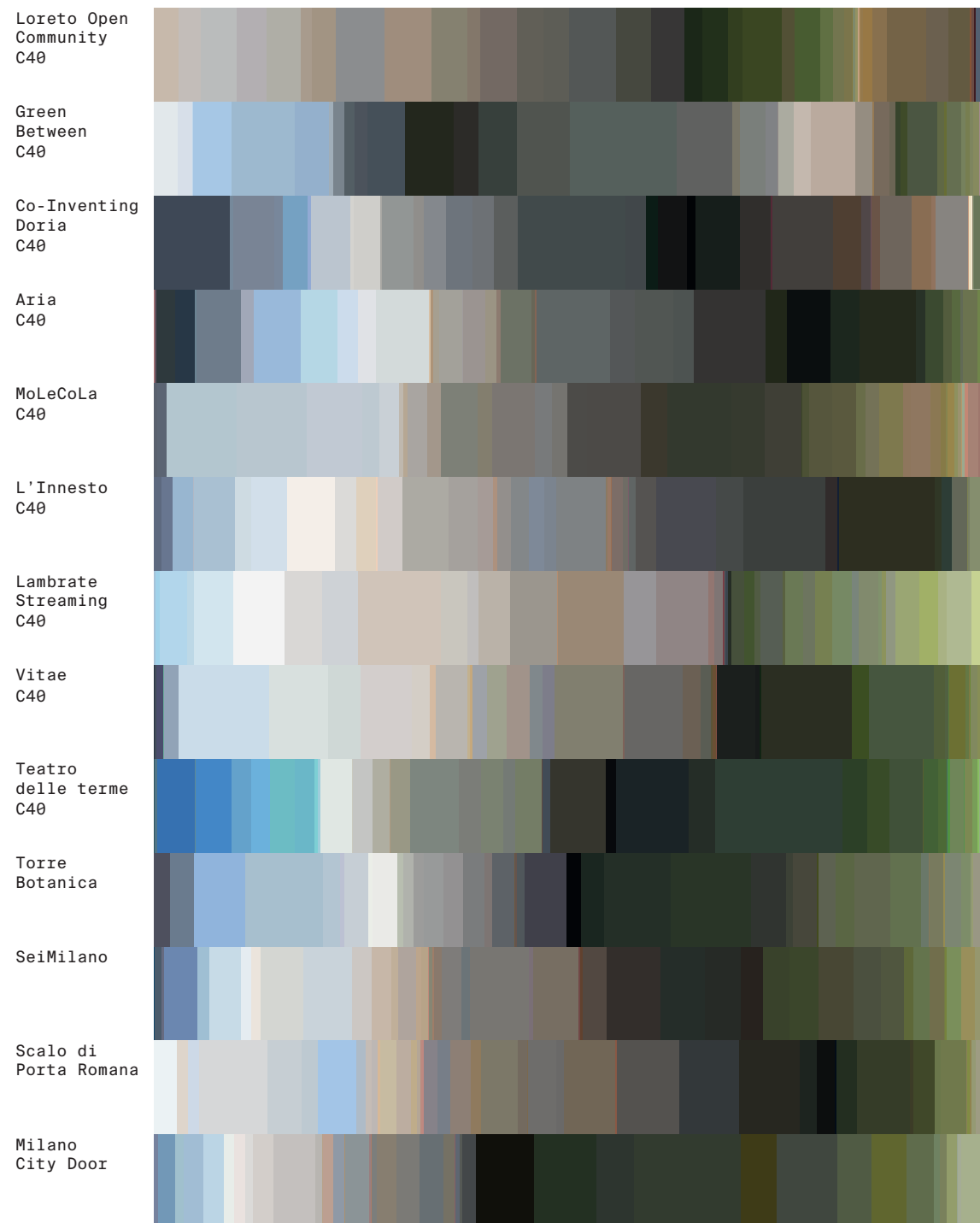
FINDING 3:

While showcasing the context in which the projects will be built, greenery is often added even in areas not affected by the project itself.

Comparison between the colours extracted from the renders and the colours extracted from images of the same locations as they are today.

Palettes used in renders

Gradient order

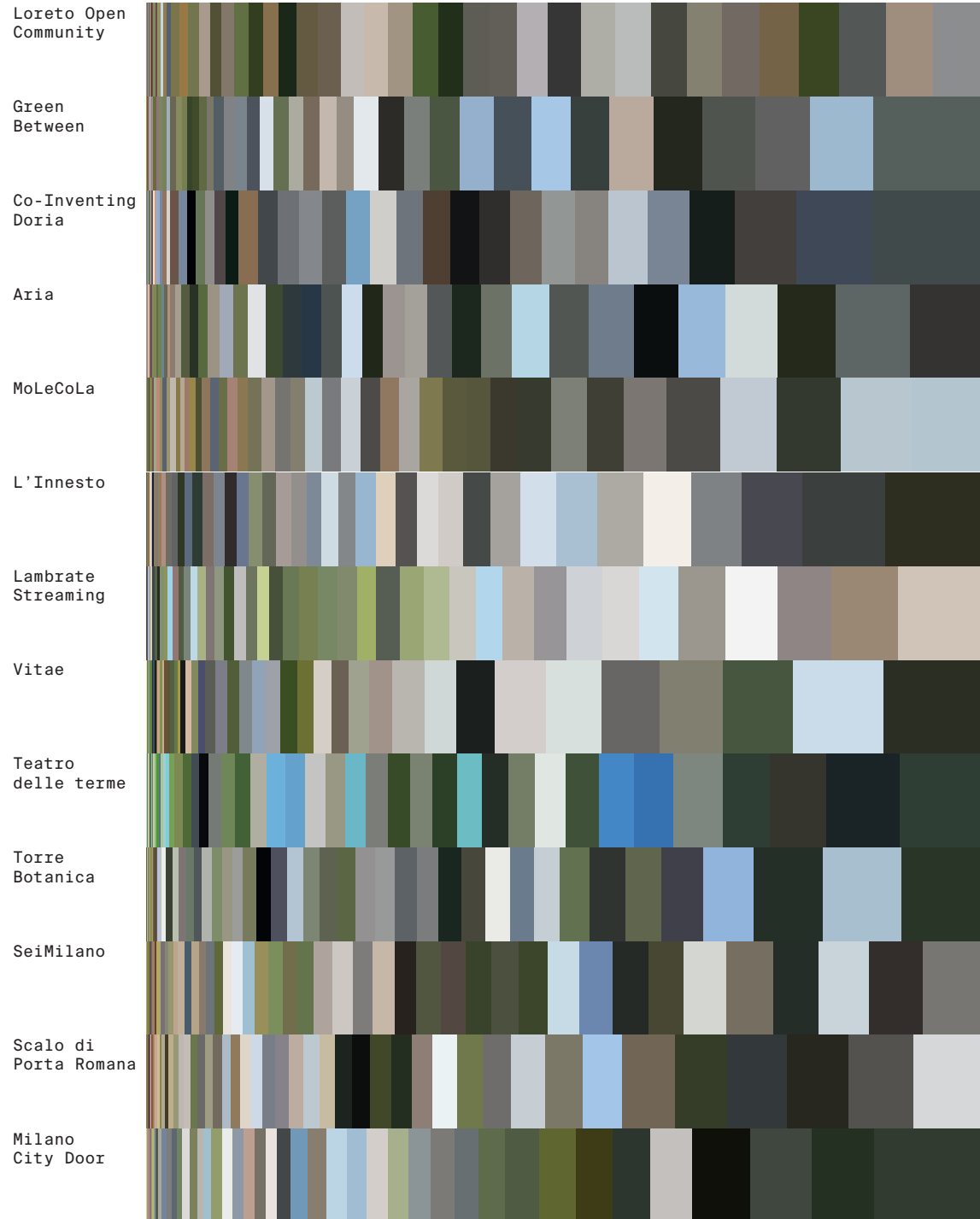


Gradient order

Palettes of Milan today



Palettes used in renders

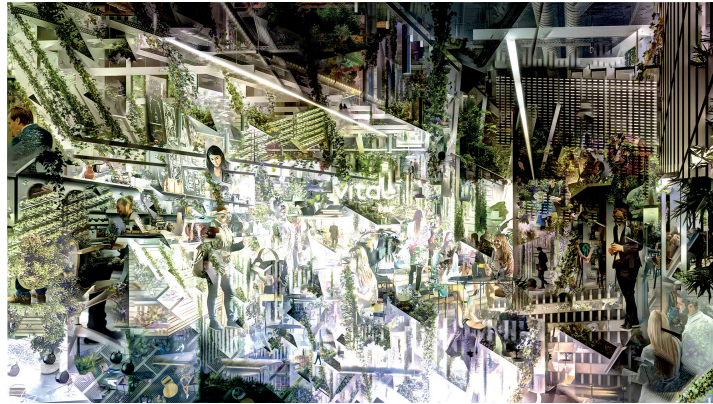


Palettes of Milan today



All the different renders of the projects have been merged and blended into a single image using the auto-blend layers function in Photoshop.

Vitae



L'Innesto



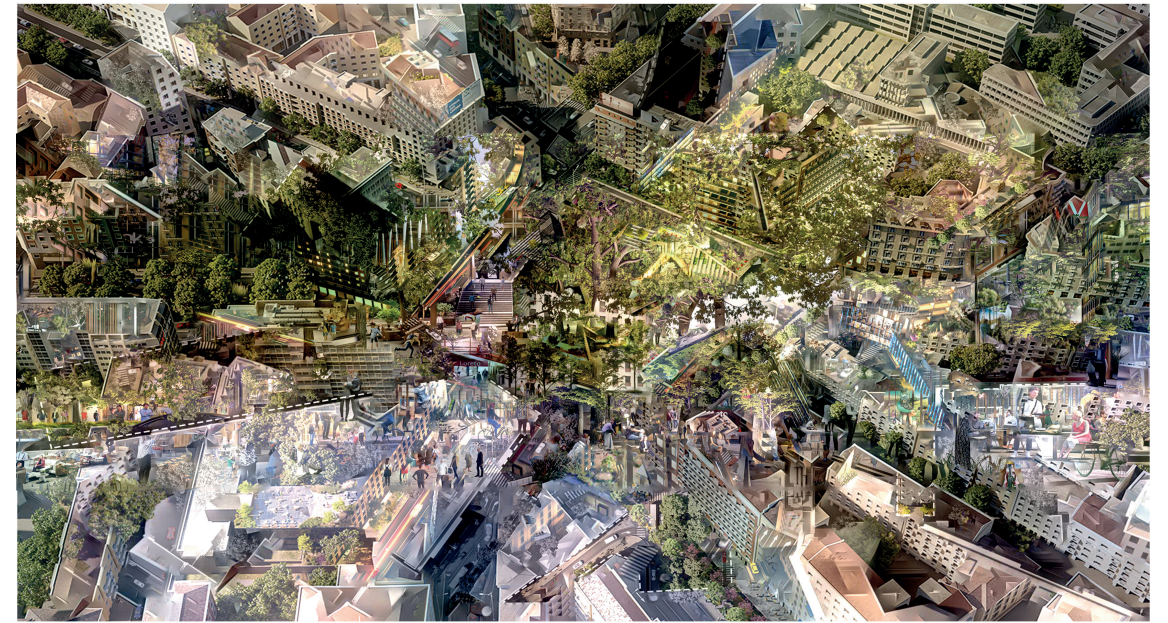
Green Between



Aria



Loreto Open Community



MoLeCoLa



Co-Inventing Doria



Teatro delle terme



FINDING 4:

Both the blendings of the renders and their colour palettes show a great use of colours related to nature. When compared to the colours that are now present in Milan, it is clear they use a lot more green and less grey.

Analysis of the consistency between different viewports of the same projects.

Loreto Open Community
Image 1a



Non exploitable green

Bushes

Lawn

Trees

- 1_The trees area of image nr. 1a aren't displayed on the image nr. 2a
- 2_In image nr. 2a a tree has been added to enhance the perception of greenery

Image 2a



Trees

- 1/2_In image nr. 2b two trees have been added to enhance the perception of greenery

Image 2b





Trees

1/2_In image nr. 2b two trees have been added to enhance the perception of greenery

Image 2a



Image nr. 1 shows the render used to publicly present the project, despite the image being unusually framed.
Image nr. 2 represents a possible behind the scenes on how picture nr. 1 was taken.

Image 1b



Image 2b



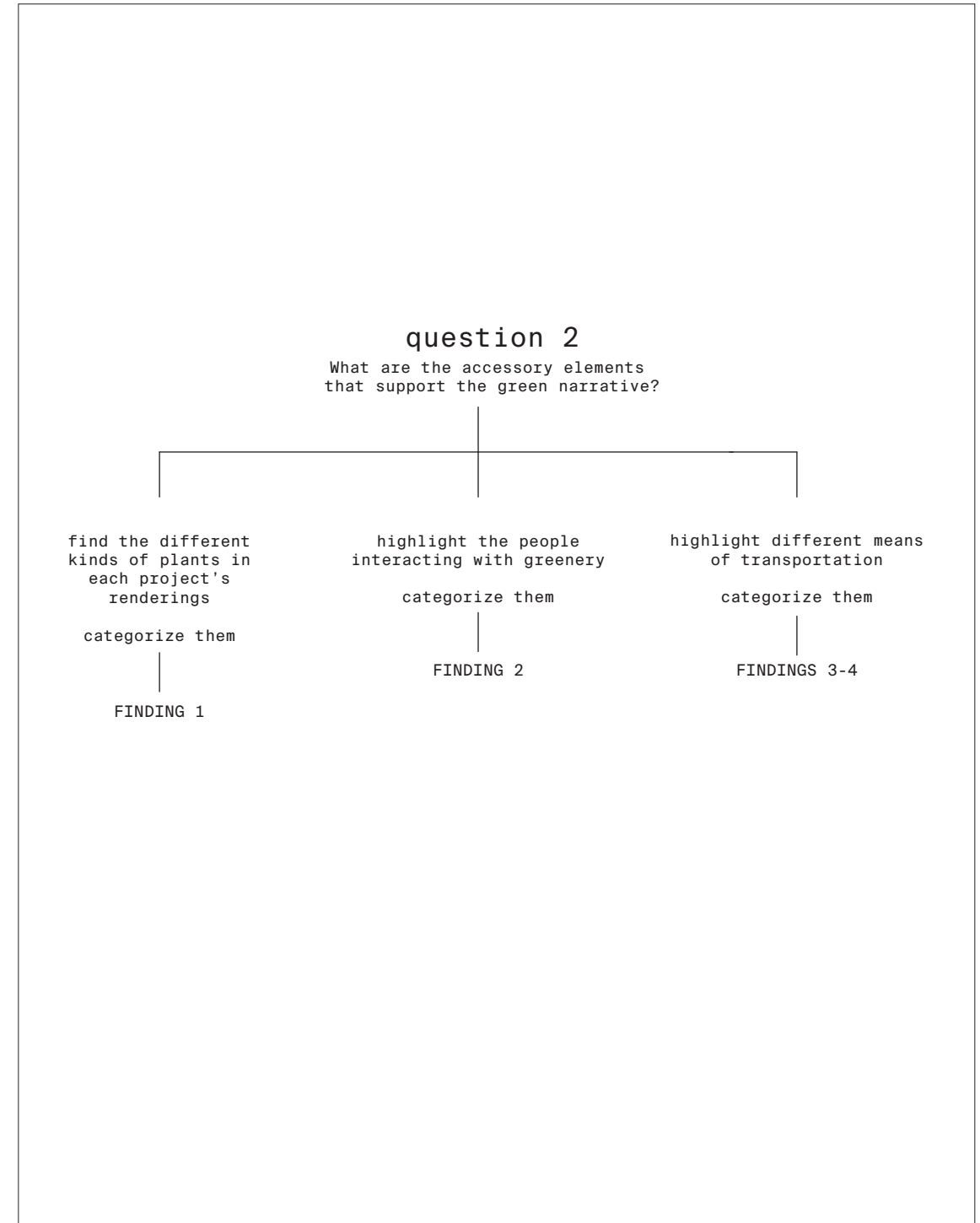
FINDING 5:

The renders' point of view is chosen so that, through its perspective, it can include a greater amount of greenery. But sometimes there are discrepancies between different viewpoints.

What are the accessory elements that support the green narrative?

The second protocol shifts slightly from analysing the green itself, to exploring the other elements used in renders to communicate the green narrative.

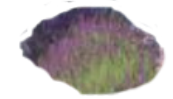
2



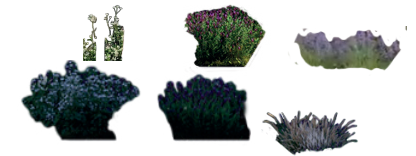
Analysis of the various kinds of greenery depicted in the renders, grouped and categorized in trees, bushes and weeds, and flowers.

	Trees	Bushes and weeds	Flowers
Milano City Door			
Teatro delle terme			
Lambrate Streaming			
SeiMilano			
Torre Botanica			
MoLeCoLa			

Green
Between



Aria



Vitae



Scalo di
Porta Romana



Loreto Open
Community



L'Innesto



Co-Inventing
Doria



FINDING 1:

While the renderings show a great amount of greenery, in most cases this does not correspond to a great variety of plants, but rather the same ones are repeated numerous times. This is true especially in the case of trees.



Milano City Door

Teatro delle terme

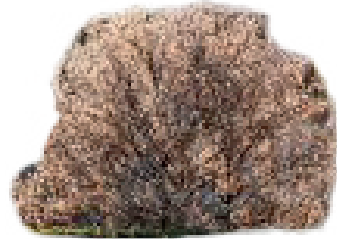


Lambrate Streaming



MoLeCoLA

Green Between



SeiMilano

Aria





Vitae



Scalo di Porta Romana



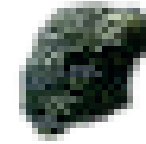
Loreto Open Community



Co-Inventing Doria



Milano City Door



Teatro delle terme



Lambrate Streaming



SeiMilano





Torre Botanica

MoLeCoLa



Vitae



Green Between



Aria



Scalo di Porta Romana



Loreto Open Community

L'Innesto



Co-Inventing Doria



Milano City Door



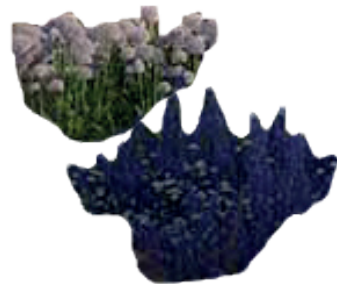
Teatro delle terme



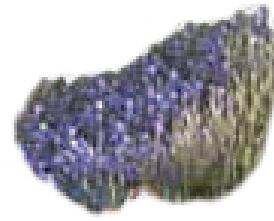
Lambrate Streaming



Sei Milano



Torre Botanica



MoLeCoLa



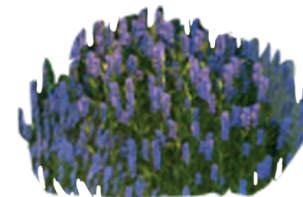
Green Between



Aria



Vitae





Scalo di Porta Romana

Loreto Open Community



L'Innesto

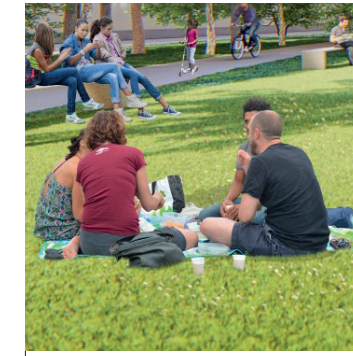
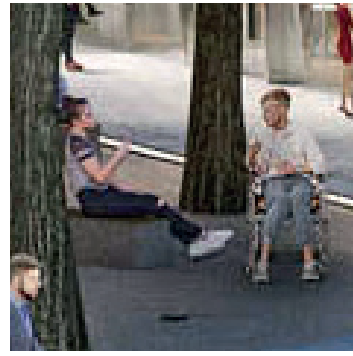
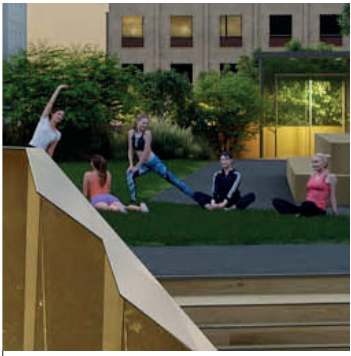


Analysis of the actions that the people depicted in the render are performing in the green areas, grouped by two main categories: passive interactions (e.g. sitting in the grass or under a tree's shade) and active interactions (directly engaging with the greenery e.g. planting vegetation)

	Loreto Open Community	Green Between	Co-Inventing Doria	Aria	MoLeCoLa	L'Innesto	Lambrate Streaming	Vitae	Teatro delle terme	Torre Botanica	SeiMilano	Scalo di Porta Romana	Milano City Door
Passive													
Active													

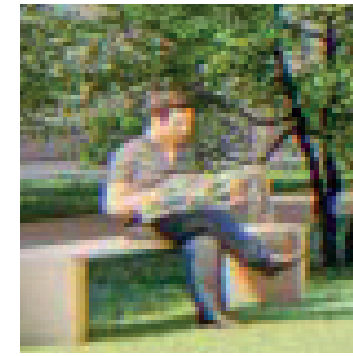
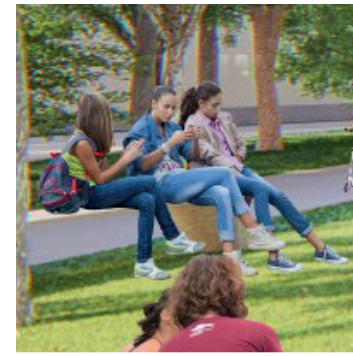
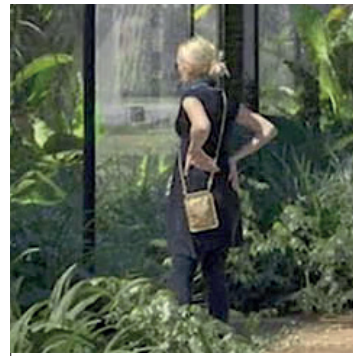
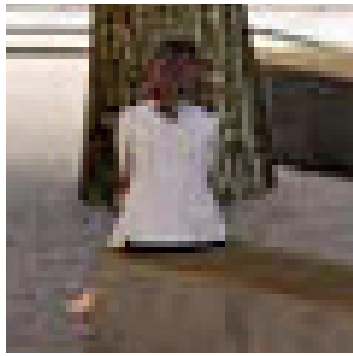
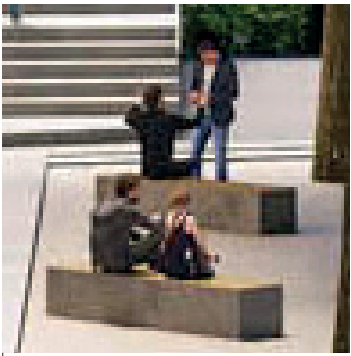
FINDING 2:

Passive interactions are the most common inside the renders, meaning people simply enjoy their green surroundings. Meanwhile active interactions are limited to community initiatives regarding nature, such as community gardens.

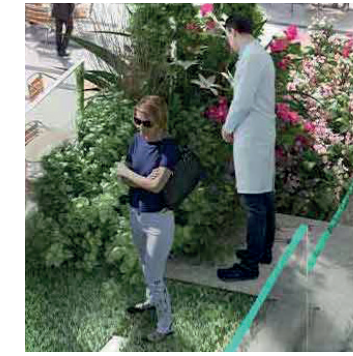
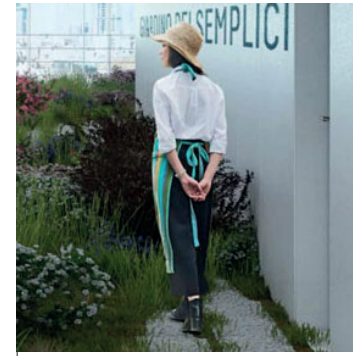
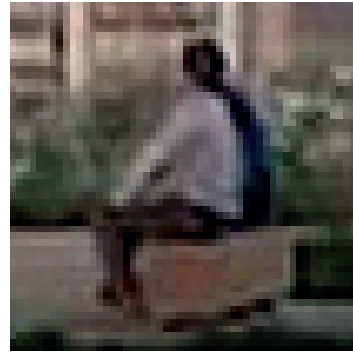
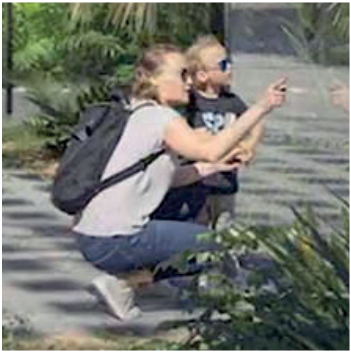


Loreto Open Community

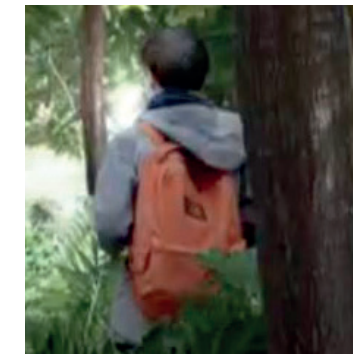
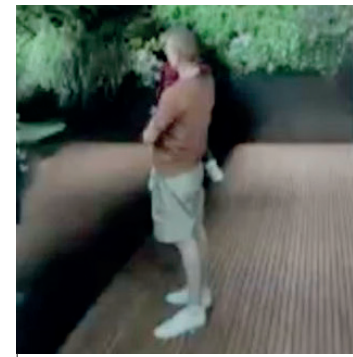
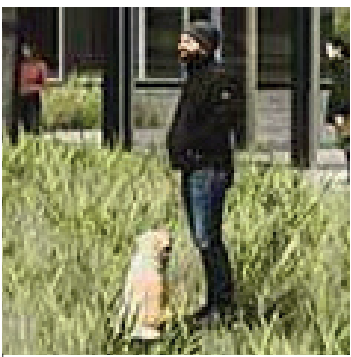
Lambrate Streaming



Aria

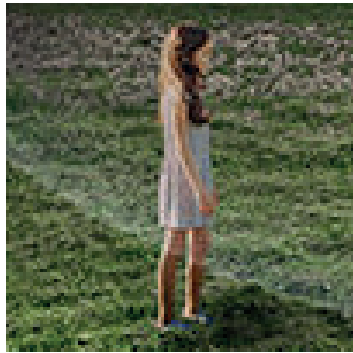
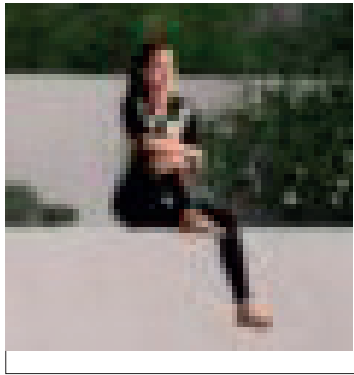


Vitae



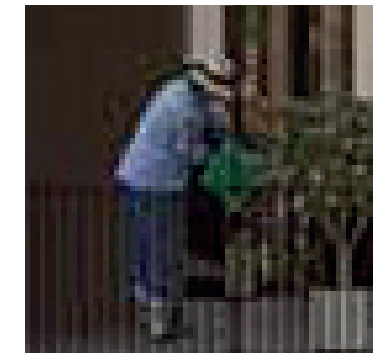
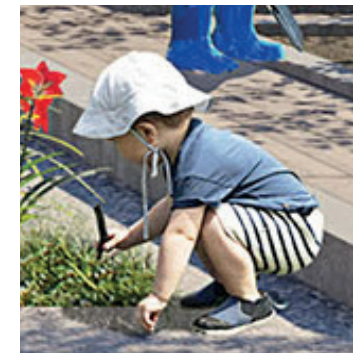
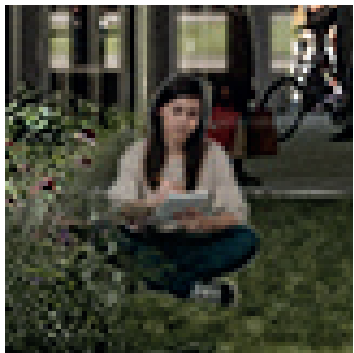
MoLeCoLa

Torre Botanica



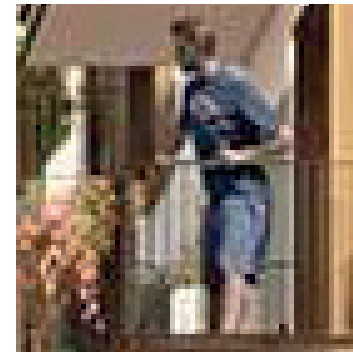
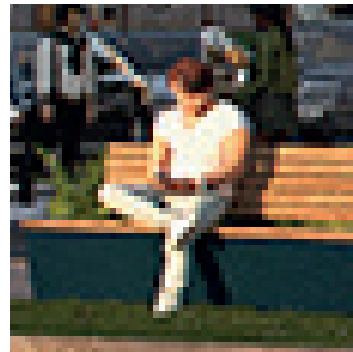
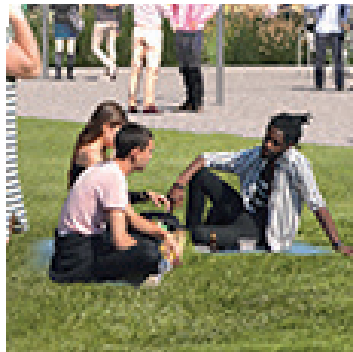
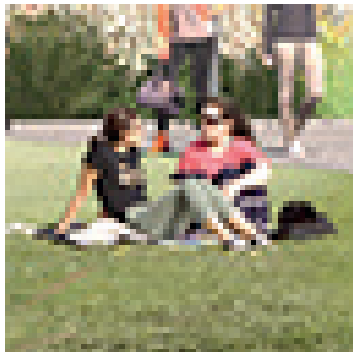
SeiMilano

L'Innesto



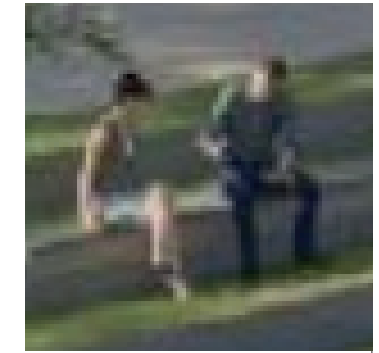
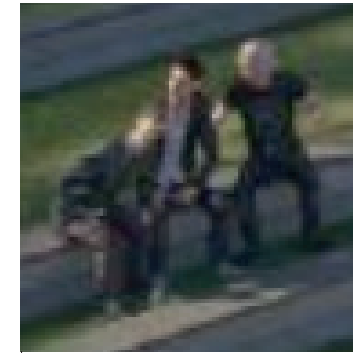
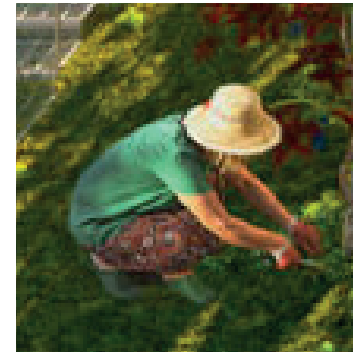
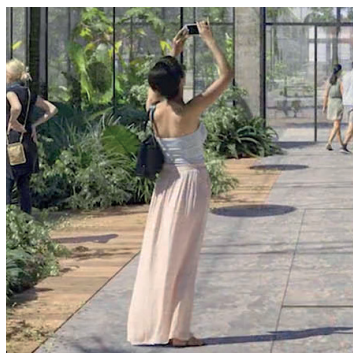
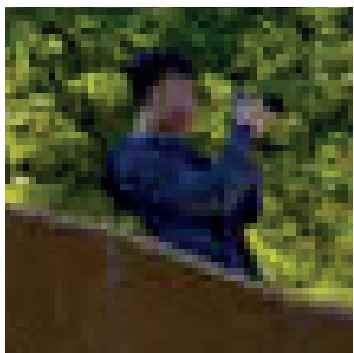
Scalo di Porta Romana

SeiMilano



Milano City Door

Vitae



Loreto Open Community

Aria

MoLeCoLa

Green Between

Analysis of the vehicles depicted in the renders, grouped and categorized in private cars, bicycles and scooters, and public transportation.

Cars

Bicycles/Scooters

Public transportation

Milano
City Door

Teatro
delle terme

Lambrate
Streaming

SeiMilano

Torre
Botanica

MoLeCoLa



Green
Between



Aria



Vitae



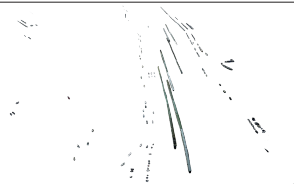
Scalo di
Porta Romana



Loreto Open
Community



L'Innesto



Co-Inventing
Doria



FINDINGS 3-4:

Motor vehicles are shown only in renderings with a larger point of view including the surrounding city, or in projects where street mobility is directly affected.

The scarce representation of means of transportation is limited to more eco-friendly vehicles such as bicycles, public transport, or electric cars.



Lambrate Streaming



Aria



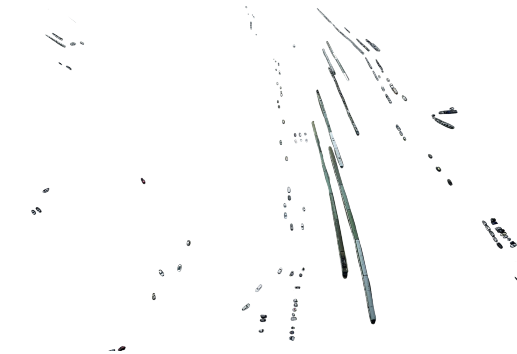
Torre Botanica



Green Between



Vitae



L'Innesto



Scalo di Porta Romana



Loreto Open Community



MoLeCoLa



SeiMilano

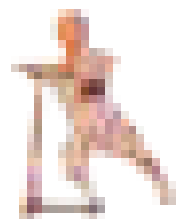
Torre Botanica



MoLeCoLa



Lambrate Streaming



Green Between



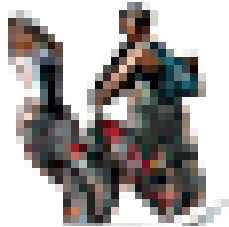
Aria



Vitae



Scalo di Porta Romana



Loreto Open Community



L'Innesto



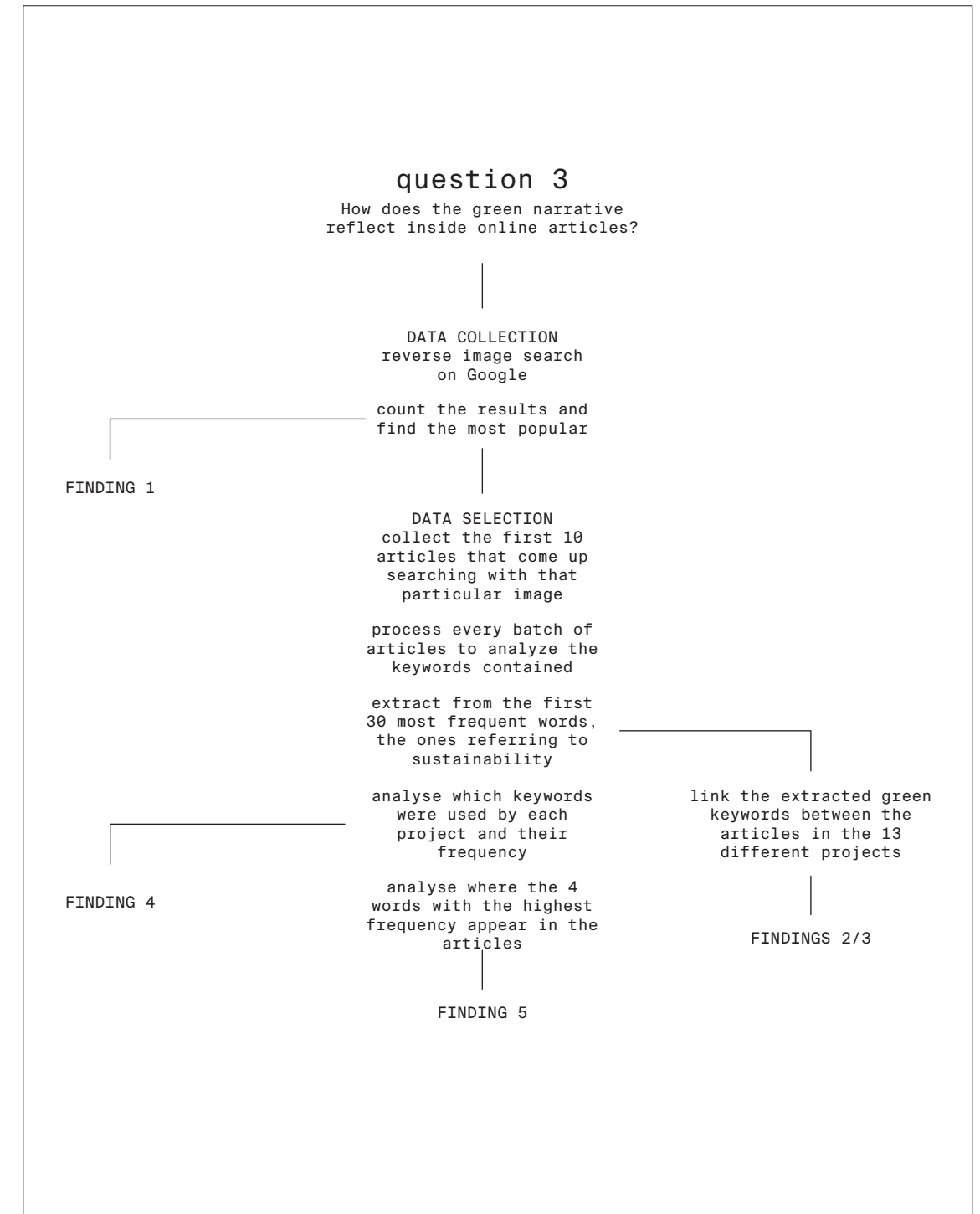
Co-Inventing Doria



How is green presented while communicating the projects?

The third protocol will investigate what kind of words and how they have been used to describe the projects online to convince people and sell the project.

3



Number of websites

Using google image search to determine the number of web pages on which each project render is present, reporting the most popular image.



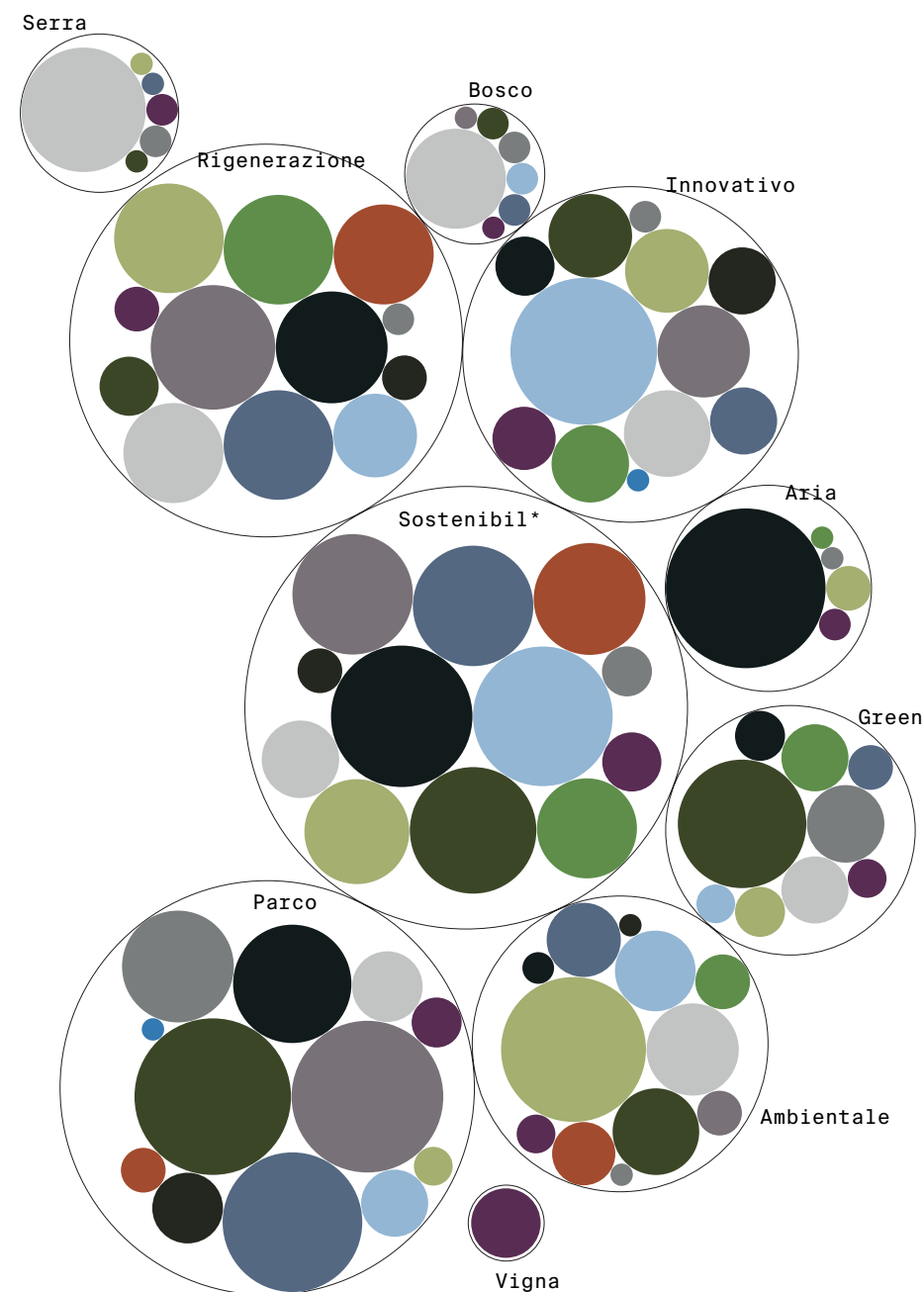
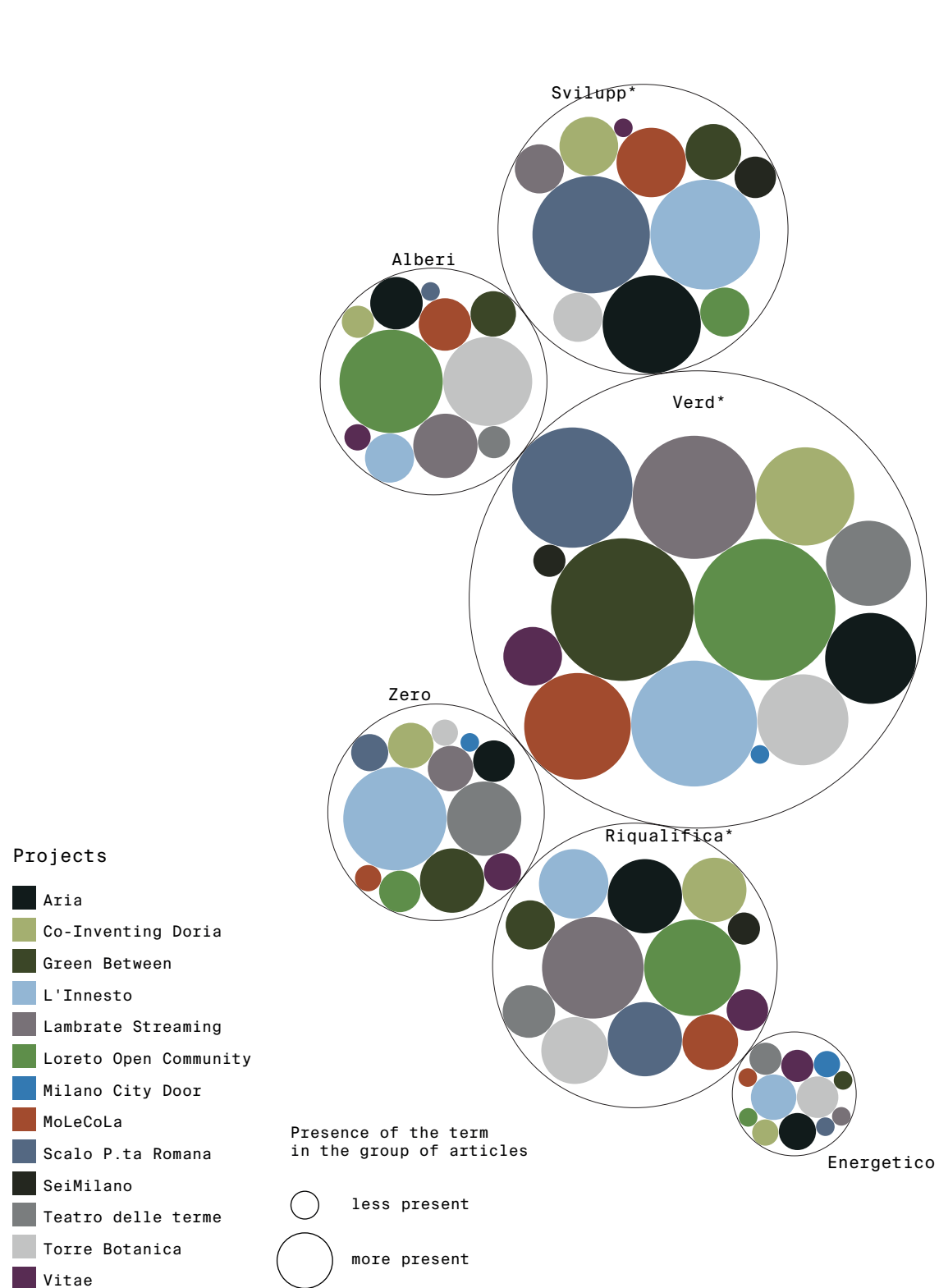
FINDING 1:

There appears to be no correlation between the type of framing and the most used image of each project. Rendings representing an overall view of the project are often more popular. The only two anomalous situations are the Vitae project and the Milan City Door project.

List of the 30 most common terms within the top ten Google results obtained by searching for the most popular image of each project. For each project, terms related to sustainability are highlighted.

most used terms for each project	Milano City Door	Teatro delle terme	Lambrate Streaming	SeiMilano	Torre Botanica	MoLeCoLa		Green Between - Tessiture Urbane	Aria	Vitae	Scalo di Porta Romana	LOC - Loreto Open Community	L'INNESTO	Co-Inventing Doria
1	Milano	scuderie	Lambrate	quartiere	progetto	Bovisa		verde	Milano	Vitae	Romana	Loreto	progetto	progetto
2	City	progetto	progetto	SeiMilano	Pirelli	Milano		Crescenzago	progetto	progetto	Milano	via	Milano	Milano
3	Door	terme	Milano	nuovo	39	progetto		Milano	Macello	spazi	scalo	piazza	scalo	progetti
4	comfort	Milano	servizi	parco	ponte	MoLeCoLa		parco	quartiere	edificio	progetto	piazzale	sociale	via
5	complesso	De	città	città	Milano	quartiere		Lambro	città	building	Porta	Milano	quartiere	ambientale
6	abitativo	San	scalo	progetto	Torre	aree		progetto	Aria	Cities	masterplan	progetto	housing	Doria
7	appartamenti	Siro	via	Borio	Boeri	stazione		città	circa	Ratti	città	città	Lombardia	area
8	Assago	termale	parco	Mangiarotti	nuova	lungo		housing	spazi	urban	villaggio	Padova	Greco	Reinventing
9	casa	Montel	sistema	studio	città	nodo		green	IED	città	olimpico	spazio	spazi	Cities
10	dotati	via	verde	partners	Stefano	Hines		quartiere	Cities	Milano	quartiere	loc	verde	progettista
11	edifici	città	quartiere	Prelios	serra	mobilità		cities	nuovo	area	sviluppo	traffico	innesto	bando
12	energetico	parco	spazi	SGR	Diller	nord		reinventing	via	Carlo	COIMA	pubblico	zero	nome
13	futuro	grande	Cities	Värde	COIMA	nuovo		bando	edifici	Reinventing	parco	nuova	Breda	verde
14	impianto	verde	mq	innovativo	nuovo	pubblico		between	oltre	new	verde	verde	circa	città
15	interni	centro	Reinventing	residenti	alberi	via		nuovo	Ex	lavoro	Covivio	spazi	sistema	esperto
16	metri	vasche	edilizia	vivere	Pirellino	spazi		via	mq	progetti	spazi	alberi	fondo	quartiere
17	nuovo	ex	pubblico	architects	urbana	spazio		piazza	design	spazio	Prada	viale	FS	responsabile
18	NZEB	euro	San	Cucinella	Gioia	nuovi		servizi	prevede	piazza	vincitore	grande	Cities	S.r.l
19	ogni	zero	aree	Mario	via	realizzazione		redo	Reinventing	pubblico	2026	oltre	gestione	aree
20	residenziale	progetti	scali	spazi	bosco	Cities		social	internazionale	smart	sud	riqualificazione	immobiliare	rigenerazione
21	soluzione	acque	piazze	urbana	porta	comune		sociale	campus	ufficio	concorso	Ceetrus	sistemi	viale
22	urbano	bando	progetti	Desvigne	rigenerazione	percorsi		comunità	due	metri	grande	corso	team	Loreto
23		nuovo	ferroviario	edifici	verde	Reinventing		superficie	culturale	ricerca	rigenerazione	Porpora	Reinventing	edificio
24		complesso	rigenerazione	internazionale	edificio	Politecnico		grazie	attività	urbana	servizi	urbana	aree	Lambrate
25		metri	piano	Michel	spazio	città		metropolitana	aree	vigna	nuovo	mq	fondazione	sito
26		piano	pubblici	Milano	bibliotca	due		qualità	parco	C40	Carlo	Nhood	Italia	internazionale
27		acqua	masterplan	mq	comune	mobility		residenti	pubblico	competition	outcomist	bando	urbana	pubblico
28		Cities	internazionale	multifunzionale	residenziale	Park		spazi	grazie	grazie	studio	Buenos	anni	siti
29		green	urbana	paesaggista	spazi	verdi		C40	nuova	luoghi	holding	nuovo	area	urbana
30		Marzorati	nuovi	progettato	verticale	edifici		emissioni	rigenerazione	Milan	stato	rigenerazione	ex	S.p.a
31			sociale	rigenerazione		rigenerazione		nuova		piano			gruppo	spazi
32			sostenibile	sostenibilità		sistema				scuderie			lavoro	
33			studi	sviluppo						Serio			porta	
34										verde				

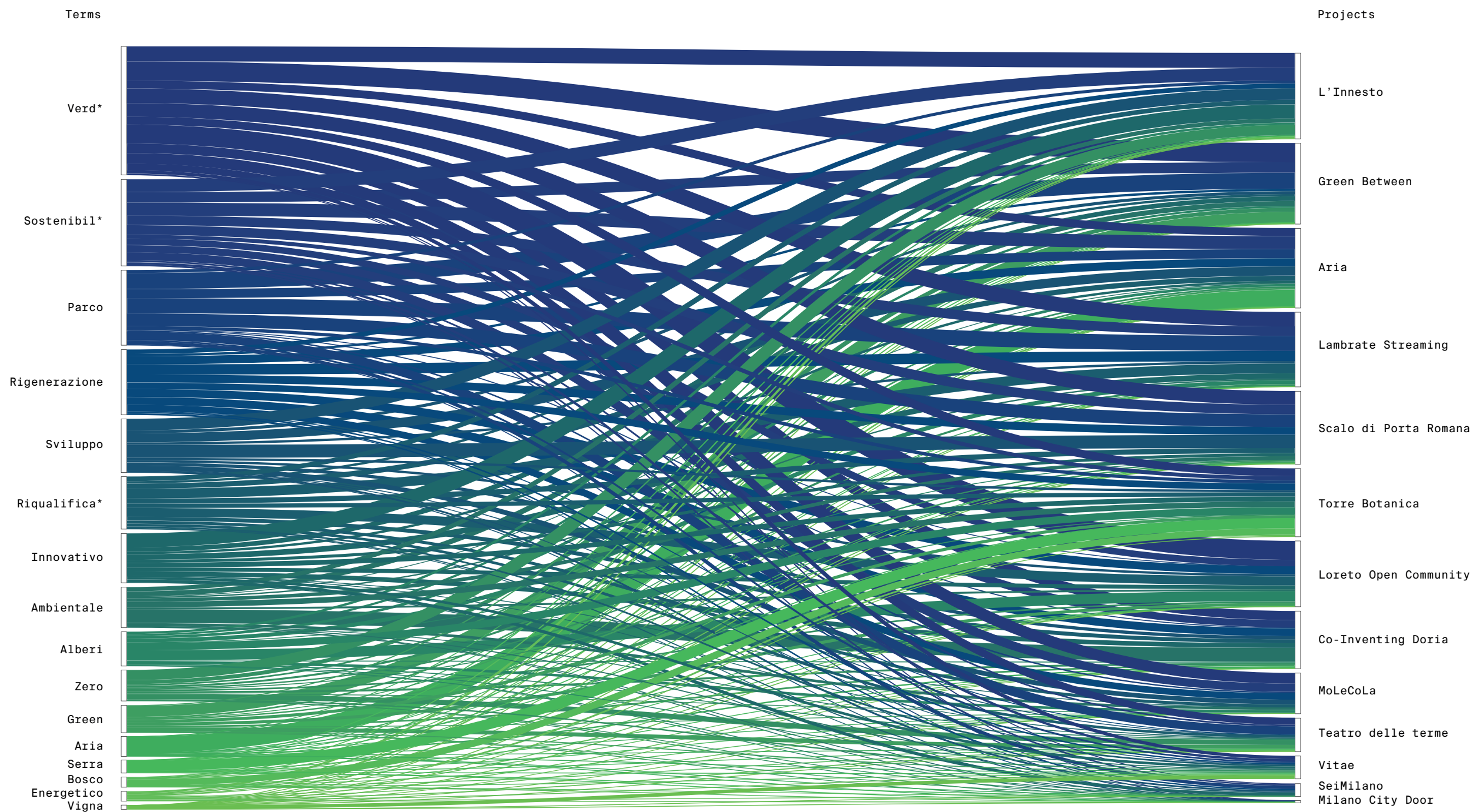
Graph representing the use of terms related to sustainability by groups of articles discussing various projects.



FINDING 2:

It can be seen that the same terms are used to describe several projects, suggesting that there is a transversal vision of the concept of sustainability.

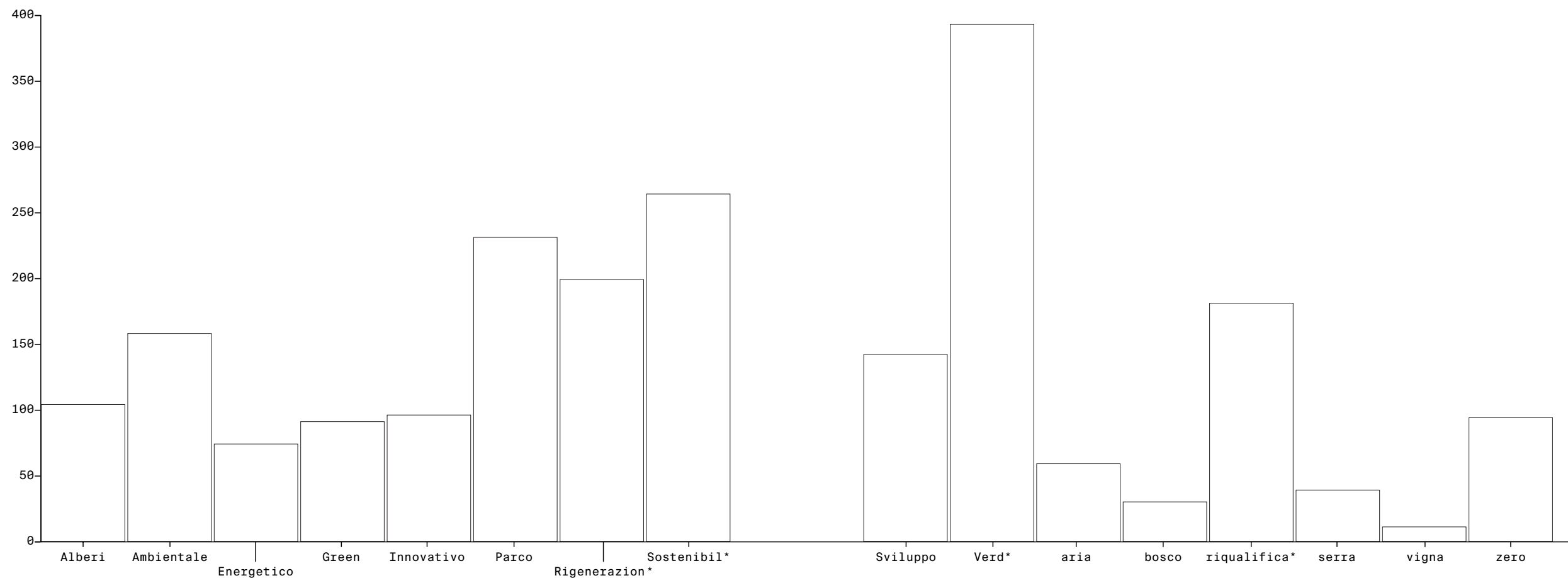
Alluvial diagram representing the proportion of previously selected terms within the articles for each project.



FINDING 3:

It can be seen that the gradient represented by the terms on the left is repeated in each subdivision into projects on the right. This means that in each of the groups of project articles, there are enough terms to allow the gradual change of colour to be perceived. This represents the fact that in different groups of articles, the same variety of terms related to sustainability are being used.

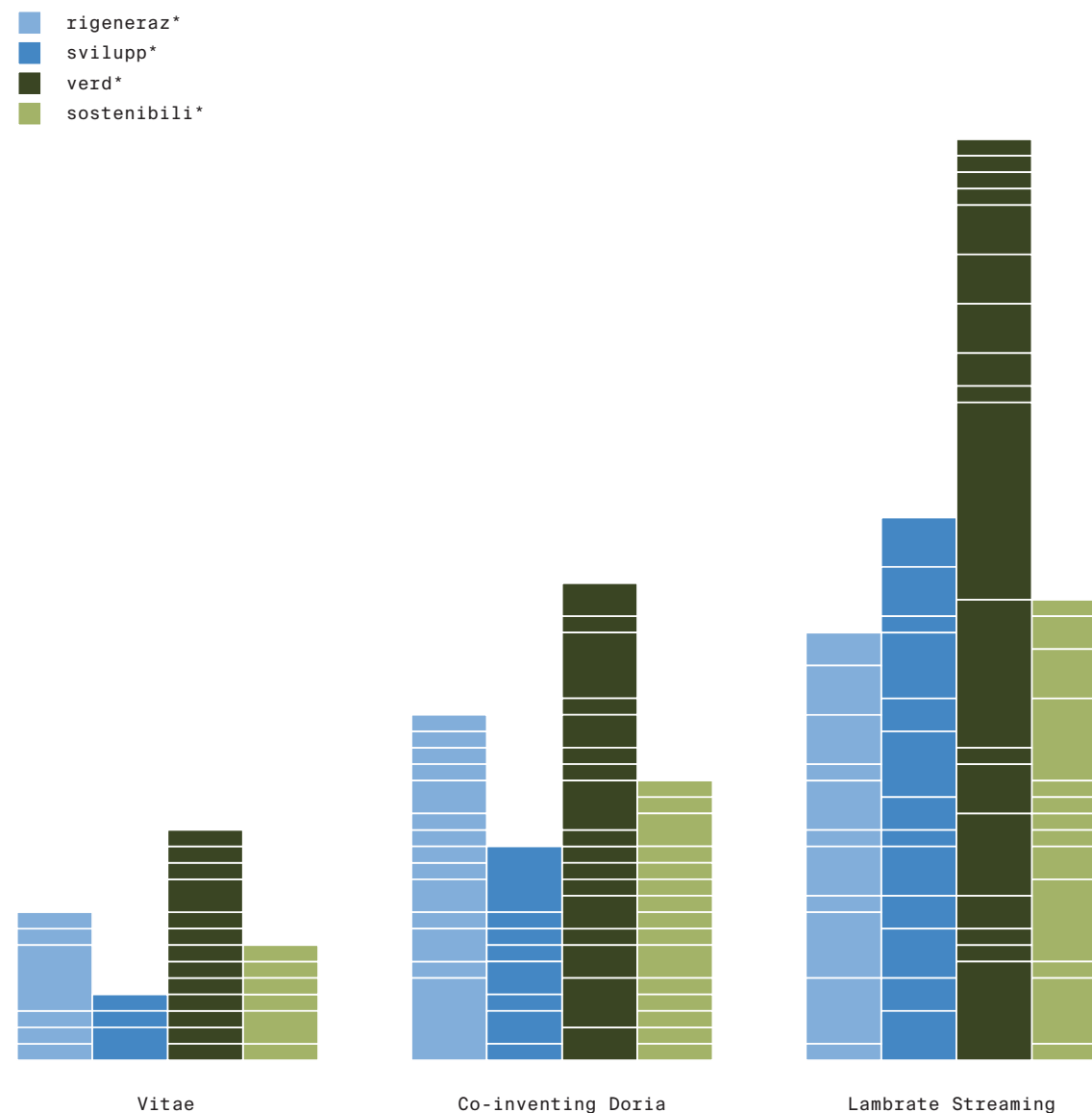
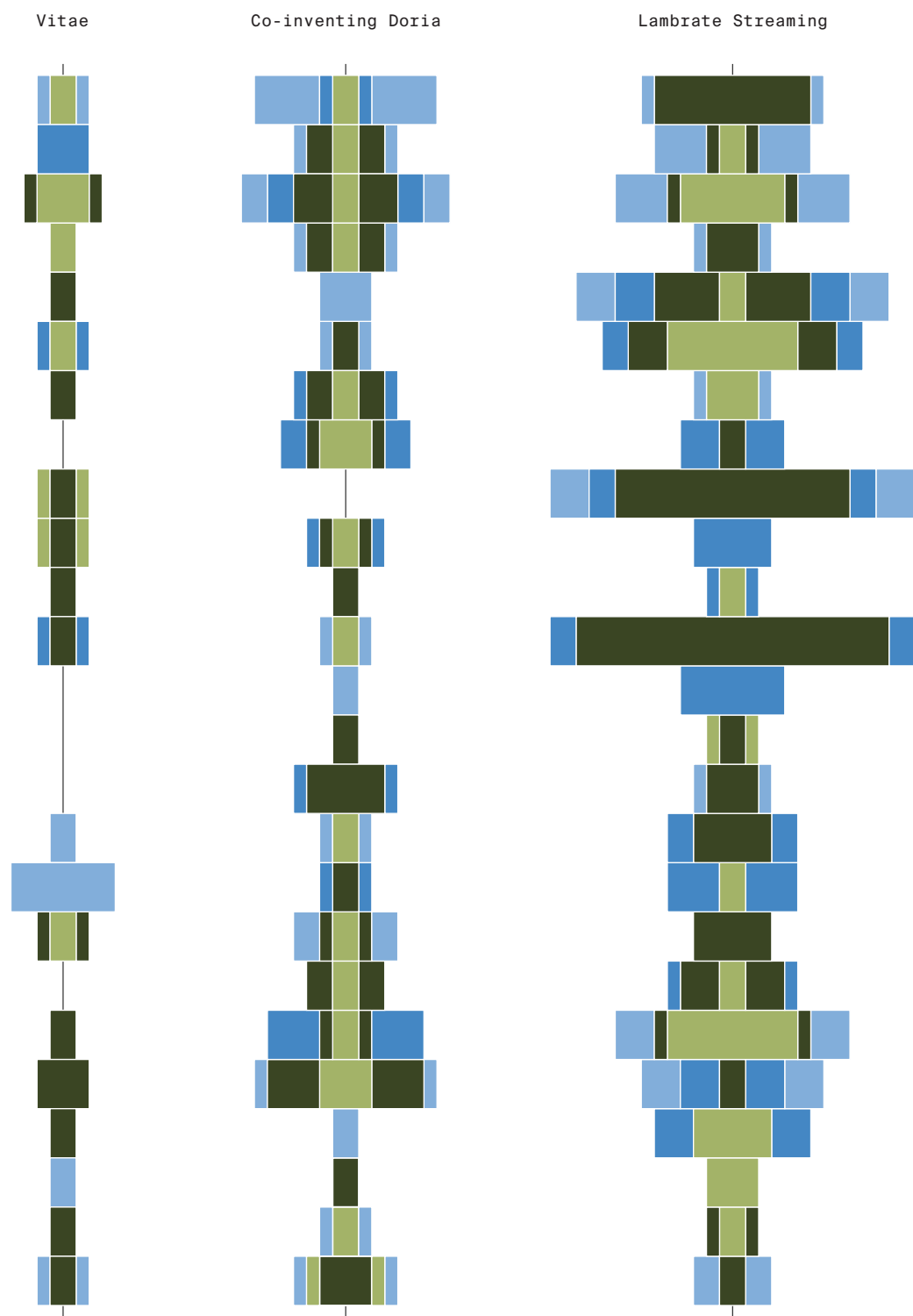
Histogram representing the number of times each term occurs in the total number of articles.



FINDING 4:

The terms used most often are “rigenera**” (regeneration), “svilup**” (development), “verd**” (green) and “sostenibil**” (sustainability). These give an idea of where the attention of those who talk about sustainable issues falls in relation to urban renewal projects in a city like Milan, which is constantly trying to renew itself, moving away from the name of a grey and environmentally uncaring metropolis.

Comparison of the distribution of the four most frequent words related to sustainability within the projects whose articles present the maximum (Lambrate Streaming), minimum (Vitae) and average (Co-inventing Doria) number of these terms.



FINDING 5:

“verd*” is the most recurring term in the articles about the three projects, followed by “rigenera*” for Vitae and Co-inventing Doria. For Lambrate Streaming, the second most recurring term is “svilup*”, a word with the lowest recurrence in the other two. The distribution of terms is not particularly polarised within the articles. There does not seem to be a greater use of terms related to sustainability in strategic positions such as the beginning or the end of the articles.

Conclusions

To sum up our analysis, we have discovered numerous ways in which the green narrative is used to communicate architecture projects. In some cases this narrative is enhanced to the point of breaking reality (e.g. adding trees in the foreground where it is impossible, like in the Sei Milano project), suggesting a correlation between “greener” and “better”.

Regarding the visual aspect of the research, we did not find any significant difference between the projects selected by the C40 contest and those which were not. However, when searching for the articles for the third protocol, for two out of four projects that were not part of C40 we were able to find only short paragraphs from real estate websites, suggesting a lack of interest from other kinds of news outlets.

Nonetheless, a common narrative can be found since the first 11 words, of the 30 most frequent ones referring to sustainability, are used by at least 10 of the examined projects out of 13. The reason why other words are not present across most projects is because they are very site-specific, often referring to a particular structure or building.

AUTHORS



Francesco
Battistoni



Carlo
Boschis



Federica
Inzani



Federico
Meani



Mattia
Mertens



Ottavia
Robuschi