

What Colour?

Considerations towards a tangible reading of facade
colours in two of Lausanne's constellations.



2024, Alicia Fankhauser

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colours in two of Lausanne's constellations.

EPFL 2024

Under the guidance of Florence Graezer Bideau, Anja Fröhlich and Tiago P. Borges

THANK YOU!

To Florence and the *énoncé* team for the exciting discussions, dynamic feedback and comfortable atmosphere during the semester.

To Anja Fröhlich and Tiago P. Borges for the stimulating input.

To Michaël, Charlo and Léa for the endless support, laughs and light.

To Elsa and Albane for the kindness and the time, from wherever.

And last but not least, to my family for the love and opportunities.

“Emerging from her world of thought Mrs. Desbaresdes suddenly asked:

What’s your favourite colour?

Mr. Chauvin, used to this question, automatically replied:

Dark red. And yours?

Her gaze vanished under the firm and confident answer.

Why dark red? I don’t have any. For me, colour alone doesn’t exist, it’s always in relation to a background, to a history, to conventions... “Colour” is never separated from a surface, a matter and especially from light. The difficulty has more to do with the recognition of those parameters and the questioning of them. And also with the mediatization and reproduction of colours and coloured objects. There’s no rule, there’s no right or wrong.

He waited. He spoke to her in an appeasing and soothing tone.

I simply like red. Does this require any explanation? The choice of a colour is something very personal. Isn’t colour depending on one’s associations?

She poured some more wine into her glass and said:

For me, colour is not so much about the tint itself but it gives me the opportunity to make a certain statement: This is my room, and this is the colour I’ve chosen. For me, it’s a simple way to express myself. One shows his- or her colours by choosing them. Neutrality disappears when it comes to colour. It’s such a striking tool, isn’t it?

Mr. Chauvin looked down.

So my favourite colour is orange.

Mrs. Desbaresdes stood up from her chair. He remained seated, overwhelmed by the absurd situation.”¹

Introduction

This *énoncé théorique* originated from an observation. An increasing number of Swiss cities seem to be gaining interest in the cultural dimension contained in the colours of their built environments. Surveys are undertaken to record the typical colours of facade, representative of different epochs, and destined to create inventories to assist the discovery of cities' colour heritages.

As I could not remember having approached the subject in any way other than graphically during my architecture studies, apart from a vague souvenir of a first-year architectural theory class, the thought of this intrigued me. I sat on a realisation that I had previously only considered colour through its outbursts and exceptions, leaving me wondering about it on the city's omnipresent buildings' facades; witnesses of changing epochs, long-lasting yet growingly temporary.

These observations on colour, a subject most of us experience daily, led me to investigate the origins of our relationship to it in the urban context. Allowing me to, in turn, question the way we study it and perceive it in Lausanne's Architectural practice.

Context

Colour, as a phenomenon, defies simplicity in its definition, revealing itself as a complex and contextual entity. Over the past centuries, and as a result of several intertwining societal mechanisms, our relationship with it has tremendously evolved. In Switzerland, since the early 20th century, colour has grown to be viewed increasingly separately from contextual, textural and material considerations, causing its handling to fall under a matter of personal taste.

Facades are a part of the private domain which overlaps with public space. While in most cases they are elaborated individually through separate projects, they are in constant relationship with their direct context and anchor constructions in their environment. In return, facades convey stories of their owners and conceivers to their surroundings and act as representations of both. In this sense, facade colours act as testimonies of evolving relationships and techniques².

Over the last decades, more than a dozen Swiss municipalities have shown interest in the colour of urban facades, undertaking a series of area-specific surveys³. These studies, which in turn serve as help for the decision-making of the responsible authorities*, have led to the injection of a notion of cultural heritage in the colours of the city, a culture of colour.

* Since 1985, facade cladding materials and colours have been under communal regulation in Switzerland. In Lausanne, all interventions on facades are studied by either one of the Building Permits Office's (*Office des permis de Construire*) three sub-units (urbanism, building permits or *patrimoine*).

Theoretical Framework

* In this essay, the word heritage is used as a translation of the French *patrimoine*.

* *Haus der Farbe* is a technical college and Institute for design in crafts and architecture, working on colour, located in Zürich, Switzerland.

*The *Bauhaus*, founded by the architect Walter Gropius, was a German school for design, applied arts and architecture. It was based in Weimar from 1919 to 1925, moved to Dessau until 1932, and relocated in Berlin for the few months before its 1933 closing.

Although the subject of urban colour has made a return in recent years, illustrated by the increasing number of articles considering it, it seems that discussions on colour are often quick to become polarized between questions of personal taste. To avoid falling into subjective debates, the preservation of an existent coloured heritage* and character is often the decisive factor.

“Colour culture” is a term borrowed from the Zürich-based *Haus der Farbe Institut** and the local versions of their publications titled “Farbkultur im Ortsbild”. It guides our investigation of some of the origins of our present strategic and patrimonial regulation of colour on urban building facades, and thus in the perceived space of the city of Lausanne. Through this journey, we intend to understand the stakes of such an approach, in order to question it.

Important scientific discoveries in the understanding of colour in the 16th century have paved the way for an increasingly theoretical and scientific exploration of the phenomenon. The *Bauhaus**, open between 1919 and 1933 in Germany, was amongst the first places in Western Europe where a large scale dialogue around the consideration of colour in art and architecture re-manifested[†].

Teaching there, alongside other schools, the Swiss painter Johannes Itten elaborated a new type of theory around colour, in which a subjective approach allowed for an objective description of artwork⁵.

The German painter Josef Albers, a student of Itten, and later teacher at the same school, further developed the experience-based study of colour, which he compiled in his 1963 “Interaction of Colour”. Throughout his teachings, his students and he held as a base principle the relativity of colour regarding its neighbouring elements⁶.

Considering these works, and the ones more recently undertaken at *Haus der Farbe*, we wonder about the possibility of applying a similar experience-based approach to the reading of facade colours, as a tool for the comprehension of our urban context.

Research Objectives

* In this essay, sensible elements are defined as subjective elements in perceived space, experienced by a user.

The main objective of this research is to explore an experience-based method for the reading of colour in which sensible elements of its influences and reactions on and to architecture are rendered tangible*. This mapping aims to objectively study the interactions of colour in perceived space, in turn allowing for discussion at a design level. This research is intended as a stepping stone for the later diploma project in which we would like to further explore how such tools for colour comprehension could be transposed to early phases of design.

Methodology

In the first chapter of this work, we retrace major steps in the definition of colour in the Western European context to uncover the essential elements of its architectural definition.

In the second chapter, we investigate the apparition of the notion of “colour culture” and the tools used to approach colour in today’s practice, to question their pertinence in colour reading and planning.

In the third chapter, we explore the potentialities for a tangible reading of colour in two case studies in the city of Lausanne. Building upon the method developed by the *Haus der Farbe Institut*, we aim to include sensible data in an objective representation to study the impact of colour on perceived space.

Notes

1. Trans editorial team 2017 (Ruben Bernegger, Amelie Nguyen, Adrien Meuwly, Claartje Vuurmans), “Editorial”, *Farbe Trans: Publikationsreihe des Fachvereins der Studierenden am Departement Architektur der ETH Zürich* (Zürich, 2017), p. 3.
2. Stanislas Rück, “les couleurs du patrimoine fribourgeois”, in *La culture de la couleur à Fribourg. La couleur de l’architecture au fil du temps*, (Zürich: Haus der Farbe, 2022), p. 7.
3. “Beratung und Dokumentation”, Haus der Farbe, accessed January 14, 2024, <https://hausderfarbe.ch/de/institut/beratung/>
4. Anneliese Itten, Préface, In *Art de la Couleur, édition Abrégée*, Johannes Itten, trans. Sylvie Girard (Ravensburg: Otto Maier Verlag, 1961; Dessain & Tolra, 2018), p. 5-6.
5. Johannes Itten, *Art de la Couleur* (Ravensburg: Otto Maier Verlag, 1961)
6. Josef Albers, *Interaction of Color* (New Haven & London: Yale University Press, 1963)

Table of contents

Tracing Definitions

18	Introduction.
18	Etymologies.
19	To each their own.
23	An attempted stabilisation.

Built Colour

28	Introduction.
28	Local resources and proximity trade: colour as a geological mirror.
32	New availability and a time for colourful social experiments.
36	"City picture" and the fear of its loss, the advent of municipal interest.
40	The commercialisation of colour charts as decisional catalogues.
44	"Colour culture", the translation of an inherited strategic nostalgia.

Colour in Perceived Space

50	Introduction.
54	Method.
68	Subtleties within polarities.
70	Rythm in contrast.

To Conclude

76	Towards an architectural consideration of colour.
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Chapter One

Tracing definitions



Introduction

“When asked: what do the words red, blue, black and white mean, we can of course immediately point to things that are these colours. But our ability to explain the meaning of these words only goes so far.”¹

In this chapter, we will define some of the basic notions and terminologies used in the *énoncé*, and trace their development. Our research object, colour, is a complex subject which answers various definitions depending on communities, cultures, and consequently continents. In this chapter, we narrow our investigations to the Western European context, to which Switzerland belongs. We argue that within Western Europe, similarities in terms of natural environment, climate, history, knowledge and traditions lead to a comparable evolution when talking about the approach to colour².

Etymologies

celare (Latin): to hide (something from someone), cover, keep a secret, conceal.

khrôma (Greek): skin; skin colour, carnation.

In the majority of Indo-European languages descended from Latin, Greek, and Proto-Germanic roots, such as French and English, the origins of the term “colour” can be traced back to the concept of covering, akin to a layer, skin, or envelope.

To each their own

It is important to note that there is not a single, agreed-upon definition of colour, even when focusing our research on a single area. Every discipline has a method and an explanation for the phenomenon that occasionally contradicts one another. In that respect, the definition of colour in Europe has evolved over centuries, first referring to a matter, then to decomposed light, and finally to a sensation³.

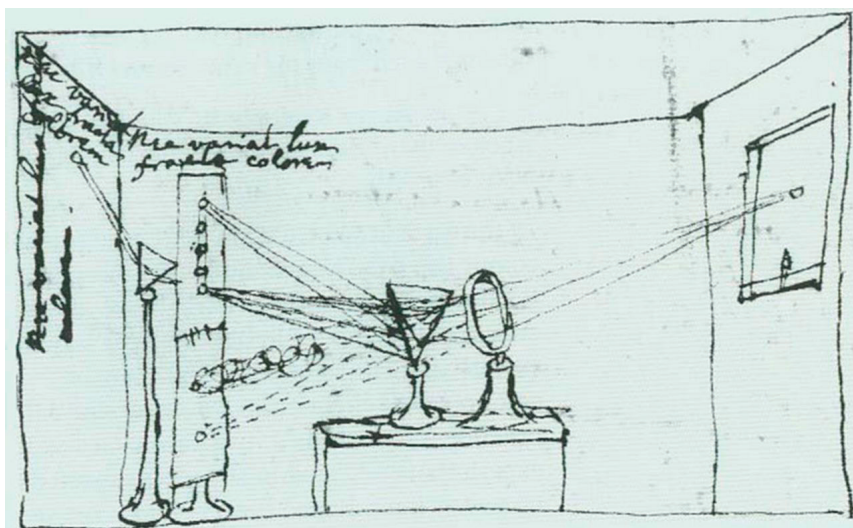
The Greek philosopher Aristotle (384 - 322 BCE) is attributed with developing the earliest colour theory ever discovered, which is described in his treatise “On Colour”. It demonstrated an early intuition of the relationship between light and colour, stating that all colours came from mixing white and black in different ratios. The theory ordered colours on a scale in the following sequence: white, yellow, red, green and black. It associated each one with the four elements^{*}. Blue was only introduced between green and black throughout the Middle Ages⁵.

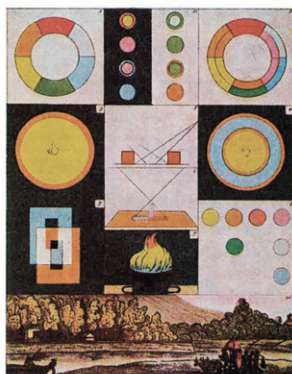
* “Those colours are simple which belong to the simple colours. elements, fire, air, water and earth. For air and water are naturally white in themselves, while fire and the sun are golden. The earth is also naturally white, but seems coloured because it is dyed. [...]”⁴

Before the English physicist and mathematician Sir Isaac Newton's groundbreaking experiments between 1665 and 1666, Aristotle's colour theory was widely held as the basis of scientific order, considering colour to be an inherent particularity of matter, a material of its own. Newton's experiments brought about a radical change in the physics of colour theory. Understanding colour as the interaction between light and matter was achieved by passing sunlight through a prism, demonstrating that white light decomposed into a spectrum of seven colours. In most science-related domains, this classification of colours on a spectrum has gradually come to be accepted as the fundamental physicochemical order. This revelation challenged the prevailing definition of colour and generated a shift in its understanding.

Newton's work, regrouped and published in 1704 in "Opticks, or a treatise of the reflections, refractions, inflexions and colours of light" laid the foundation for a new field of study on colour that sought to categorise it as an objective and measurable science. Scientists gradually discovered how to measure colours in wavelengths, and artists discovered how to create a range of colour variations, organising them in charts increasingly often from the Enlightenment onwards. With the advent of the ability to measure, control, and reproduce it, colour appeared to lose some of its enigmas⁶.

Image - Sir Isaac Newton's sketch for his 1665-66 prism experiments.





In 1810, the German novelist, poet and art theorist Johann Wolfgang von Goethe published *Zur Farbenlehre* (“Theory of Colours”), a book in which he strongly challenges Newton’s discoveries and scientific vision of colour, seeing it as reductive. Goethe advocated for the consideration of the subjectivity of colour perception and the singularity of the observer. In the third part of his book, he problematised the Newtonian vision, which would later induce the neuroscientific one, by asking the question: “Is a red dress still red when it’s not seen?”, a question to which he answered negatively⁷.

This early 19th-century disagreement illustrates a present-day debate surrounding colour, namely the cleavage between hard sciences and humanities. It is useful to understand these variations of definitions given to colour between domains, in order to grasp its unruly and dynamic character⁸. Where a physicist will bring forward colour’s wavelength, a chemist will observe its pigment composition, and an anthropologist will research it as a social phenomenon.

Image - Plate from Johann Wolfgang von Goethe’s treaty “Zur Farbenlehre”. It illustrates one of his experiments involving two candles and coloured glass plates.

An attempted stabilisation

As a part of the discipline of Architecture, in constant oscillation between technical and artistic considerations, we find ourselves straddling. Given this variety of definitions, we feel the need to, for the sake and time of this *énoncé*, recompose and stabilise an architectural definition of colour. Let us thus recapitulate our findings in an effort to reach a common basis to address the subject.

From a physics perspective, colour is simply reflected light. When a ray of light hits a surface, a portion of the spectrum is absorbed and another is reflected. This reflected portion will be registered and interpreted by an observer. The colour seen is therefore entirely dependent on the light conditions at a specific instant, the surface's textural and chemical characteristics, and the setting's characteristics. In 1974, the film theorist Rudolf Arnheim described colour as a “moody medium”, a description that we will borrow in this *énoncé*, to summarise its ever-moving and adaptive character⁹.

Not only does colour vary with its environment, but it also varies according to the viewer. Colour is experienced in a somatic* sense and through cognitive processes which differ from one person to another. The information thus depends on personal and subjective factors including memory, sight, age, gender and associations¹⁰.

*The somatic sense defines the faculty of bodily perception.

* Six base colours: black, white, red, blue, yellow and green ; and five of the second order: grey, brown, pink, purple and orange.

Depending on the culture, these colours, what they refer to, and their ranking vary.



* Light refers to the source of colour, it depends on the immediate environmental context studied.



* Surface refers to the material and tangible reality of colour. It includes texture, pigments and creates depth.



* Context refers to the cultural baggage surrounding the interpretation and consideration of colour.

The French historian Michel Pastoureau, who dedicated the past three decades to the study of the symbolic and cultural history of colour, argues that, in the Western-European imaginary, only eleven colours are truly considered as such*. These colours, in turn, are the ones declined in an infinite number of hues. With this statement, Pastoureau illustrates the cultural dimension intrinsic to the consideration of colour itself¹.

Given the aforementioned transient, contextual and subject-dependent characteristics of colour, we consider that defining it as one singular entity in our practical consideration of it would be reductive. Just as much as aspiring to absolute accuracy when defining colours would be unrealistic and irrelevant to this research. Our interest in this *énoncé*, lies rather in the “inherently trans-documentary” character of colour¹², and in the mechanisms that make it the moody medium described above. This leads us to a composed understanding of colour, approaching it as being the result of the interaction and intersection of three factors: light*, surface* and context*.

Notes

1. Ludwig Wittgenstein, *Bemerkungen über die Farben* (Frankfurt-am-Main, 1979), p.68.
2. Michel Pastoureau, *Les couleurs de nos souvenirs* (Paris: Éditions du Seuil, 2010), 9-13, 85-88, 237-242.
3. *Ibid.*
4. Aristotle, *On Colours* (Digital Loeb Classical Library: 1936), p.5.
5. Michel Pastoureau, 2010, *Op. cit.*
6. *Ibid.*
7. Johann Wolfgang von Goethe, Paul-Henri Bideau, Henriette Bideau, and Rudolf Steiner, *Le traité des couleurs* (Paris: Triades, 1973).
8. Ludwig Wittgenstein, 1979, *Op. cit.*
9. Rudolf Arnheim, *Art and Vision: A Psychology of the Creative Eye* (Berkeley: University of California Press, 1974), p. 343.
10. Fiona McLachlan, AnneMarie Naser, Lino Sibillano, Marcella Wenger Di-Gabriele, Stefanie Wettstein, *Colour Strategies in Architecture*, (Zürich, 2015).
11. Michel Pastoureau, 2010, *Op. cit.*
12. *Ibid.*, p.240.

Chapter Two

Built Colour



**Or from a material to a strategic handling
of facade colours.**

Introduction

Having set the definition of colour we will follow throughout this essay, the chapter Built Colour investigates the upcoming of our present relationship to colour in the city of Lausanne. This second chapter aims at contextualising this architectural relationship by focusing on facade colours, in order to question it. Building up on our established definition, the chapter also serves as an exploration of the cultural, historical and contextual factors of our later case studies.

Local resources and proximity trade: colour as a geological mirror.

Before the late 19th century and the development of transportation, construction materials were generally closely linked to locally available resources. In Lausanne, as in an important number of Swiss settlements, most of the local materials were sourced from the region's geology.

Natural pigments were extremely rarely used in construction craftsmanship because of their high prices and unavailability, making them luxurious products. The colours of the built environment thus entirely stemmed from the natural tint of local stones and sands. The city's facade colours were not a choice, nor were they a subject of discussion, they simply translated the stratigraphy of the direct environment¹.

Image - Photography
from the old town of
Lausanne,
taken December 2023.





Image - Close up photography of the molasse of Lausanne's cathedral, taken December 2023.

Being built on a molassic bed, several quarries were opened within Lausanne's borders and its close surroundings to supply its population with construction materials. Quarries in proximity also extracted sandstone and limestone. In some cases, which are sometimes still visible in the old town, the structural stones were left visible, showing the local molasse's colours*.

Most of the time, however, protective layers were applied to the facades to prevent important damage due to their exposure to weather changes. These plasters and mortars were created with a mixture of lime*, sand and water. The colours of the plaster were a direct result of the pigmented fine particles of the sand used in the mix^{2,3}.

Although this link between local materials and colours remained traceable, it became less pronounced towards the end of the century with the increase of possibilities for transportation and the need for more stone than what was closely available to answer the building demand. The importation of natural materials therefore became more and more common, slightly distancing colour from the direct natural building resources of the city.

* As two of several examples, the cathedral of Lausanne and the St-François church are both built largely out of local molasses.

* They were generally created with air lime (*chaux aérienne*) because of the quality and availability of regional sandstone.

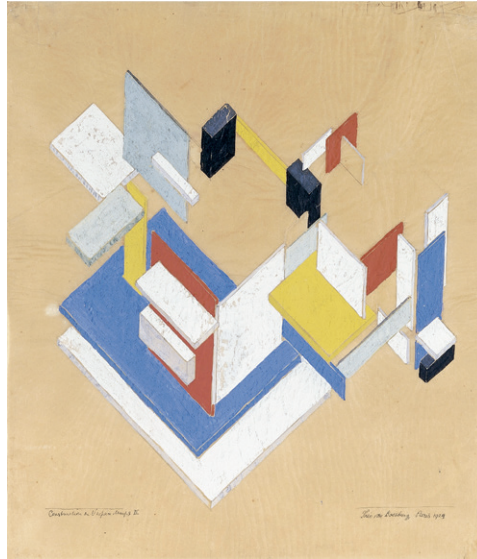
New availability and a time for colourful social experiments.

With the first trains arriving in Switzerland in the 1850s, and the railway system becoming national in the 1900s, the development of Lausanne accelerated drastically. Accompanying this development came new industrial techniques in colour synthesis, resulting in an increased availability of quality pigments at a reduced price⁴.

* Constructions were increasingly subject to technical norms, such as the ones edicted by the *Société des Ingénieurs Architectes* (SIA) since 1883.

Building designs became increasingly rational*, opting for masonry facades covered with smoother painted plasters. The beginning of this century also saw the introduction of Portland cement, a robust alternative to lime, whose properties included the capability to harden in humid conditions and a higher solidity⁵. These important developments in terms of colour availability offered new possibilities for facade colours, spreading its consideration as a choice rather than a given.

Image - Theo van Doesburg's study "Construction in Space-Time II", elaborated in 1924, illustrating the elementary rules at the heart of the *De Stijl* neo-plastic movement.



The 1920s and 30s, in contrast to the morose atmosphere of the First World War, saw an increase in architectural and artistic experiments on colour in several countries in Europe. These movements, inspiring, overlapping or succeeding each other, were described by the Italian Architect Alberto Sartoris as “the antithesis of the surface decoration they openly condemned”⁶. They considered colour as an indissociable element of design, in contrast to ornamentation. The De Stijl movement, founded in 1917 in the Netherlands, approached colour following a method with extremely elementary rules. This neo-plastic theory in combination with French Cubism in turn inspired the dynamic theory* of Le Corbusier⁷.

*The neo-plastic theory, initiated by *de Stijl* is a theory making exclusive use of pure colours and non-colours. It follows a set of clear and elementary rules proning straight lines and harmonious, non-symmetrical compositions.

The dynamic theory of Le Corbusier defines three types of colours: constructive, dynamic and transitional. These three types are created and used differently depending on the desired effect.⁸



Image - Entrance of one of the buildings in the *Onkel Tom's Hütte Siedlung* by Bruno Taut. Built between 1925-33, Taut elaborated a detailed plan for the colour of each facade element.

Simultaneously, in Germany, two conflicting approaches to colour in the urban context were developing. In her essay “Das farbige Zürich: the Regulation of Facades and the Facades of Regulation”, Prof. Vronskaya presents these two opposing takes, mirroring the increasing socio-political polarisation of the Weimar Republic*, as such:

“Left, socialist and modernist, architects led first by Bruno Taut and, later, by the Bauhaus Wall-Painting Workshop (in 1925-1933 headed by Hinnerk Scheper), experimented with the use of colour in new types of workers’ settlement. Unlike them, the Hamburg-based Federation for the Promotion of Colour in Urban Scene (*Bund zur Förderung der Farbe im Stadtbild*), founded by a group of architects, technologists, planners, and pedagogues in 1926, explored the traditional use of colour, above all, in historic cores of German cities (*Altstädte*).”⁹

Alongside this new architectural theorisation of colour, and towards the mid-century, the integration of many new materials, available for constructions, allowed for darker and more vibrant elements of colour to reach facades*.

*The Weimar Republic is the historical name given to the German political regime in place between 1918 and 1933.

* Such materials included for example metal, plastic, ceramic or textile, notably for shutters and shades.

“City picture” and the fear of its loss, the advent of a municipal interest.

The German interest in colour in the urban environment mentioned above has had a certain echo in the German-speaking regions of Switzerland, notably Zürich, due to the geographical and cultural proximity of the two areas. The Swiss nationalist tradition, combined with the high value placed on the rights of property owners, led to an interpretation of the subject much closer to that of the Federation for the Promotion of Colour in the Urban Environment than to that of the militant socialist movement.

Unlike the German initiatives, which were led by independent groups, the Swiss movement investigating colour was driven by municipalities. With it, the authorities sought to preserve the image of urban and historic centres (*Stadtbild*) from the unrestricted spread of colour on facades, associated with “low-class tastelessness and political extremism”¹⁰. Emerging in Zürich, the movement was qualified as being rather “aristocratic” by the editor-in-chief of the German *die farbige Stadt*, Edmund Meier-Oberist¹¹.

Image - Advertisement poster for the 1927 exhibition “Die farbige Stadt” taking place at the Kunstgewerbemuseum in Zürich.

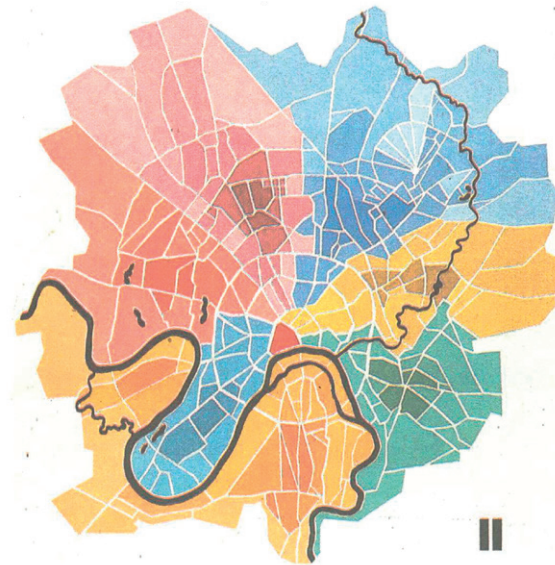


The planning tendency, characteristic of the early 20th century, led several European cities, including Zürich, to make various simultaneous attempts at colour planning, but always specific to their respective geographical and social contexts. Although we have no records of interest for such plans for towns in the French-speaking region of Switzerland until 1986 in Geneva, Prof. Vronskaya's essay gives us an insight into the context surrounding the colour of urban facades and the political aspect of the subject in Switzerland in the 1930s^{12,13}.

Image top right - Page of a 1913 Coaltrine paint table of hues, advertising the antibacterial qualities of the product. It pictures a caricatural drawing of a painter covering an infested wall, illustrating the hygienist concerns of the epoch.

Image bottom left - Leiba Antokol'skii's 1930 project for the repainting of Moscow's facades shows a horizontal gradient of colour. It proposes a gradual increase in colour intensity for each zone of the city, indicating a progression from the periphery towards the centres.

This project is used to illustrate the simultaneous and unrelated planification enterprises on colour in the 20th century Europe.



We can assume that, although quite later as a result of physical and cultural distance, Lausanne's municipality adopted a similar approach to their Swiss-German counterparts towards facade colour in the urban context. A rather advisory role, aiming for compromise between homeowners while maintaining an aesthetic conservatism.

Putting these pieces of information in parallel to the growing hygienist ideas* that emerged at the end of the previous century and spread massively during the 20th, we can understand the desire for a neutral public space, with smooth plasters, clean, and light colours¹⁴.

In 1985, the *Règlement d'application de la Loi sur l'Aménagement du Territoire* (Regulation implementing the law on regional planning) of the Canton de Vaud, in which Lausanne is located, officially gave the municipalities the decisional role in terms of facade cladding, and thus of facade colour*. The building permit office remains the decision-making authority in terms of colours today. In 2021, its lead and internal organisation changed to integrate architects into the processes*, illustrating an intended shift from its highly bureaucratic stance. This shift was reflected in the name change of the entity from *Bureau des permis de construire* to *Office des permis de construire*.



* In the early 20th century, hygiene became a comprehensive concern, unifying diverse health sectors. The term “hygienist movement” encapsulates the dynamic and proactive campaign for hygiene during this period.

* RLATC, chap. III, sect. I, art. 68. *Sont notamment subordonnés à l'autorisation de la Municipalité, sous réserve de l'article 68 a: [...] f. les revêtements extérieurs des bâtiments (matériaux, couleurs utilisées, etc.); [...] ¹⁵.*

* Until 2021, the *Bureau* was led by a lawyer, and architects were part of a separate entity.

The commercialisation of colour charts as decisional catalogues.

* Anne Varichon is an anthropologist and author specialised in colour, its materials, knowledge, processes, uses and thoughts. She also holds a doctorate in the history of colour sampling.

In order to comprehend the evolution of Lausanne's relationship with colour in the built environment, it is crucial to introduce one of the fundamental catalysts for its democratisation on a broader scale: the colour chart. In her book *Nuanciers, éloge du Subtil* ("Colour charts, tribute to subtlety") published in 2023, the French anthropologist Anne Varichon* guides us through the advent of these charts and allows us to anchor the questions addressed in the previous chapters in the context of Western societal mechanisms toward colour.

As previously mentioned, the chemical industry for synthetic colour experienced a boom at the end of the 19th century. With the advent of new industrial techniques, the status of colour changed. Initially deemed a luxury product, colour would, over the course of the 20th century, permeate all strata of society and reach the domestic sphere.

"In terms of chemistry, the opportunities presented by synthetic colour already give rise to industrial production. With this now mastered material aspect of colour, the question of its perception and the organization of its presentation becomes central." *¹⁶

* *"En matière de chimie, les opportunités qu'offre la couleur de synthèse donnent déjà lieu à une production industrielle. Cet aspect matériel de la couleur désormais maîtrisé, la question de sa perception et de l'organisation de sa présentation devient centrale"*

Colour charts were initially developed by chemists and, soon thereafter, by the dyeing industry. It was used as a tool to organise samples for promotion purposes in the context of coloured products. The colour chart can thus be understood as a representative element of the “classification enterprise” at the core of Western thought for more than two centuries, as well as of the new abundance characteristic of the second half of the 20th century¹⁷.

The colour chart reached its peak in the interwar period, with its commercialisation and widespread use in both industry and retail. This popularity led to concessions that would profoundly alter occidental society’s relationship with colour as well as its aims.

With the development of offset printing, the possibility of colour printing addressed a growing demand. The shift from the fabrication of the colour chart with specimens, made using the same matter as the sold product, to the counterproof printed chart from the 1930s onwards marked a significant paradigm shift in the consideration of colour. It would from now on be increasingly regarded separately from its physical embodiment¹⁸.

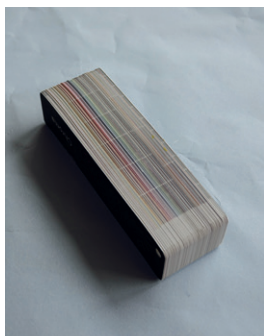


Image left -
Contemporary Chroma
colour chart. Illustrating
the typical fan organi-
sation of more than a
thousand hues.

Image right -
1920s Ripolin colour
chart, picturing an
instruction manual and
still composed of circular
specimens.

In the field of construction, the commercialisation of pre-mixed and ready-to-use paints, dispersion paints, offered tones with much more saturation than lime washes. These paints expanded the range of choices for facade colours to a virtually infinite spectrum¹⁹.

Concurrently, innovations in facade materials, construction techniques and technologies unfolded, introducing for example, but not only, curtain-wall facades, metal panels, tinted glass, concrete, and fibro cement. As the scale of buildings increased, so did the proportions of facades²⁰.

During the second half of the 20th century, a gradual transition occurred. Chemical industries were now pulling the strings and governing the prevalent colours by anticipating trends in their charts. Trends thus replaced customs in decision-making. From the 1990s onward, most charts no longer offered guidance for an informed choice and held only indicative value on colour. Their purpose was rather to present the abundance of supply and provide each client with a newfound possibility for individuality²¹.

In 2023, colour charts and palettes have become key tools in the reflections around colour in constructions. The amount of variety allows us to grasp the important disconnection between surface, texture, context and colour. Through these devices, everyone is offered the opportunity of making a choice based on individuality. Just how these different choices will affect the experience of space, however, becomes a secondary interest.

RIPOLIN

LE RIPOLIN remplace à la fois la peinture à l'huile et le vernis et donne aux objets l'aspect de la porcelaine.

LE RIPOLIN ne crevasse pas et résiste parfaitement aux intempéries.

LE RIPOLIN couvre, au kilogramme, une surface d'environ 5 mètres carrés, en une couche.

LE RIPOLIN est en vente en quatre-vingt-six nuances. Par le mélange des différentes teintes, on peut multiplier les tons à l'infini.

TOUT CE QUI NE PORTE PAS LE NOM ET LA MARQUE RIPOLIN N'EST PAS DU "RIPOLIN"

MODE D'EMPLOI :

Bien remuer la couleur avec une spatule avant de s'en servir. Prendre un pinceau propre, ferme et flexible pour faire des couches minces. Le travail achevé ou interrompu, fermer la boîte et laver le pinceau dans l'essence de térébenthine.

Pour les objets poreux : le bois, la pierre, la pierre, etc., il faudra au moins deux couches minces : il est encore préférable d'appliquer d'abord quelques couches d'appât. Notre appât "FLETO" est particulièrement recommandé pour cet usage. Avoir soin de bien laisser sécher la première couche avant d'appliquer la seconde. Avant de peindre, il faut, pour assurer un succès complet, un nettoyage radical enlevant la poussière, la rouille et les traces d'ancienne couleur n'adhérant pas suffisamment. La vieille peinture, bien adhérente, ne gèle pas. Du RIPOLIN devenu trop épais peut être rendu plus liquide par addition de quelques gouttes d'essence de térébenthine.

QUALITÉS SPÉCIALES

RIPOLIN Spécial pour Radiateurs (haut et bas)

RIPOLIN Noir Spécial pour Tôlerie

RIPOLIN Spécial pour Intérieur de Baignoires

RIPOLIN Spécial p^r Planchers et Carrelages

RIPOLIN Mat

RIPOLIN p^r Carènes (parties immergées) (parties non immergées)

RIPOLIN Noir Spécial pour Tableaux d'Écoles

APPRÊT Spécial pour Ciment Sec

APPRÊT Spécial pour Murs Froids et Humides

SUR DEMANDE, QUALITÉS SPÉCIALES POUR TOUS RÉGIONS INDUSTRIELLES.

N. B. - Les prix et formats de boîtes de ces différentes qualités figurent sur le Tarif RIPOLIN.

PREMIÈRE MARQUE DU MONDE

CARTE DES NUANCES

LES NUANCES 27, 78, 13, 54 NE SONT PAS RECOMMANDÉES POUR L'EXTÉRIEUR

1	2	3	4
Vert moyen	Bleu de Chine	Bleu pierre foncé	Bleu de France
5	6	7	8
Vert rose foncé	Bleu de Perse	Bleu vert pâle	Bleu vert clair
9	10	11	12
Vert rose foncé	Andalouze foncé	Bleu pierre clair	Bleu rose foncé
13	14	15	16
Vert rose foncé	Andalouze rose	Bleu sable	Bleu rose rose
17	18	19	20
Vert rose foncé	Andalouze clair	Bleu rose	Bleu rose clair
21	22	23	24
Vert rose foncé	Bleu rose	Bleu rose	Bleu rose
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Vert rose foncé	Bleu rose	Bleu rose	Bleu rose
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Vert rose foncé	Bleu rose	Bleu rose	Bleu rose
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Vert rose foncé	Bleu rose	Bleu rose	Bleu rose
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Vert rose foncé	Bleu rose	Bleu rose	Bleu rose
41	42	43	44
Vert rose foncé	Bleu rose	Bleu rose	Bleu rose
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Vert rose foncé	Vert rose foncé	Vert rose foncé	Bleu rose

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Vert foncé	Vert foncé	Vert foncé	Vert foncé
97	98	99	100
Vert foncé	Vert foncé	Vert foncé	Vert foncé

Bleu, rose, pour l'extérieur : demander carte-nuances spéciales.

Une petite quantité suffit pour tester le Ripolin. Les nuances sont donc identiques au produit livré. Cependant, elles peuvent varier légèrement par une seule nuance. Elles sont conservées à l'abri de l'humidité.

“Colour culture”, the translation of an inherited strategic nostalgia.

In the previous pages, we have intended to retrace the upcoming of our present relationship to colour in the urban context of Lausanne. Hovering over the advent of Swiss colour regulation allows for reading it as a mediator between individual property and general cohesion, as a reaction to new and unlimited possibilities²².

Since the beginning of the 21st century, the relationship to colour in the urban fabric seems to have grown increasingly separate from material. Similarly, the facades on which it is displayed have grown to be considered increasingly dissociated from the rest of the construction²³. The spread of colour charts and palettes as tools for the decision-making and analysis of colour in the architectural domain have been key protagonists in this separation, alongside the development of evermore realistic graphical representations of architectural projects abstracting materials.

In recent years, a series of municipalities have undertaken surveys of their typical colours, creating a notion of heritage around the handling of it. In light of the few mechanisms developed earlier in this *énoncé théorique*, which we certainly do not consider to be the only factors involved in the transition, we have come to question the relevance of such an approach to colour²⁴.

Our questioning lies in the shift of these surveys from analysis to decision-making. Focusing so far mostly on historical centres, they allow for a thorough understanding of the former link between local natural resources of cities and colour. In our extremely connected 21st century, and for a century prior, however, the notion of local resources has always less translated into constructions in Switzerland.

Questioning the relevance of a seemingly nostalgic consideration of colour in the urban fabric, we take the opportunity provided by this work to explore an approach to colour exploring its sensible qualities, uncovered through the experience of its interactions within context. Learning from its origins has allowed us to reach an understanding of the context surrounding facade colours in Lausanne. This understanding pushes us to detach ourselves from strategic considerations and pursue its study through an experience-based approach towards light, surface and context.



Image - Photography of a continuous building in Lausanne, on which propriety is marked only by surface treatment and colour.

Notes

1. Stanislas Rück, “les couleurs du patrimoine fribourgeois”, in *La culture de la couleur à Fribourg. La couleur de l’architecture au fil du temps*, (Zürich: Haus der Farbe, 2022), p. 7.
2. Eric Teyssiere, “Ce n’est pas qu’une question de goût”, in *Heimatschutz=Patrimoine*, n4 (Patrimoine Suisse, 2009), p. 12-13
3. Roger Simond, “Crépis et maçonneries anciennes” (Support de cours, Colombier, 2023)
4. Ville de Fribourg, Haus der Farbe, *La culture de la couleur à Fribourg. La couleur de l’architecture au fil du temps* (Zürich: Haus der Farbe, 2022).
5. Roger Simond, 2023, *Op. cit.*
6. Alberto Sartoris, “L’Architecture de la couleur, Couleur et Architecture”, in *Ingénieurs et Architectes Suisses* n 23 (Cossonay, 1983), p. 437.
7. *Ibid.* p. 436-439.
8. Eduardo Souza, “Le Corbusier’s Colour Theory: Embracing Polychromy in Architecture”, Archdaily, July 18, 2023. <https://www.archdaily.com/1003880/le-corbusiers-color-theory-embracing-polychromy-in-architecture>.
9. Alla Vronskaia, “Die Farbige Zürich: The Facades of Regulation and the Regulation of Facades”, in *Trans: Publikationsreihe des Fachvereins der Studierenden am Departement Architektur der ETH Zürich* (Zürich, 2017), p. 91.
10. *Ibid.* p. 90-97.
11. Edmund Meier-Oberist, “Das farbige Zürich”, “Die farbige Stadt”, 1927, Heft 12: pp. 241-242.
12. Jo. F., “Nos villes ne font plus grise mine: Le coloriage du paysage urbain a débuté timidement au milieu des années 1970, suscitant l’indignation des inconditionnels.”, in *24Heures*, September 1997, p. 46-47.
13. Alla Vronskaia, 2017, *Op. cit.*
14. Martin Illi, Geneviève Heller, Lucienne Hubler, “Hygiène”, Dictionnaire Historique de la Suisse (DHS), 2014, accessed December 2023.
15. RLATC, chap. III, sect. I, art. 68, 1985.
16. Anne Varichon, *Nuanciers, Éloge du Subtil* (Paris: Seuil, 2023), p.65.
17. *Ibid.* p. 65-268.
18. *Ibid.*
19. Stefan Gasser, “Nachbarschaften, Farben und Baugestze”, in *Farbraum Stadt, Farbkultur in Winterthur*, Haus der Farbe (Winterthur: Stadtbibliothek; Zürich: Chronos Verlag, 2018), p.20-25.
20. Ville de Fribourg, Haus der Farbe, 2022, *Op. cit.*
21. Anne Varichon, 2023, *Op. cit.*
22. Alla Vronskaia, 2017, *Op. cit.*
23. Antoine Picon, *L’Ornement Architectural. Entre subjectivité et politique*, trans. Joseph Briaud (Lausanne: PPUR, 2016), p. 29-30.
24. Ville de Fribourg, Haus der Farbe, 2022, *Op. cit.*

Chapter Three

Colour in perceived space



The exploration of a tool to render tangible
an experience of colour.

Introduction



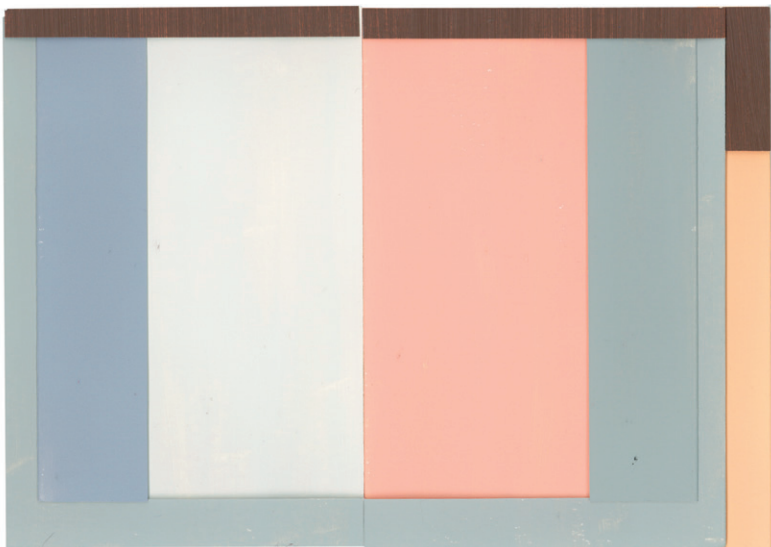
Image - Photography of the city centre of Lausanne, taken on an evening of January 2024.

This third chapter aims at materialising an experience-based approach to facade colours in two case studies in the city of Lausanne. Through the elaboration of portraits, we investigate a way of “learning through conscious practice”¹, searching to grasp the behaviours and subtleties of colour in these two constellations of the city centre. The tool intends to form a mapping of observations, exploring an alternative to our present formal approach to colour by including contextual specificities and perception.

As we jump into the subject, we would like to refer back to our definition of colour which we established in chapter one. Perceived colour, we argued, is a complex phenomenon, dependent on the interaction and combination of three factors: Light, surface and context. These three elements interact at several scales and create the specific settings in which we experience space at a given time. In the next pages, we will therefore proceed to an exploration of colour in our investigated constellations, to render tangible site-specific observations on colour that stem from the three identified factors of colour definition.

This chapter is structured around the two case studies mentioned above. The method is detailed and explained and the portraits are accompanied by a short text in order to offer a suggested way of reading. These readings are by no mean intended as permanent answers, but rather as openings to the subject.







Method

Through the previous chapters, we have intended to explore some of the societal and cultural considerations on colour which compose the context of Lausanne, and thus our case studies. Although these considerations are not exhaustive, they allow us to acquire a sufficient understanding of Lausanne in regards to its urban relationship to colour.

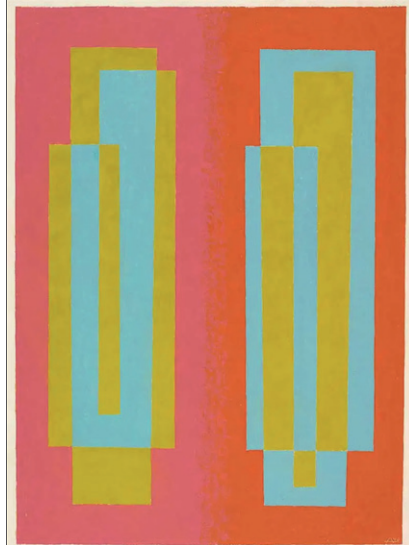
“We are able to hear a single tone. But we almost never (that is, without special devices) see a single colour unconnected and unrelated to other colours. Colours present themselves in continuous flux, constantly related to changing neighbors and changing conditions.”⁵

In his 1963 “Interaction of Colour”, the German painter and teacher Josef Albers described colour as the “most relative medium in art”². Through this publication, dedicated to the practice-based exploration of colour’s reactions and interactions, Albers describes the thirty-year exploration he undertook with his various students.

A few years later, in 1967, the Swiss painter and teacher Johannes Itten, author of “The Art of Colour”, wrote in his journal “Just as the context alone can give an isolated word its own meaning, so the relationship established between different colours is the only one that gives each of them its true meaning and particular expression.”³

Image - “Oscillating”, by Josef Albers in 1940.

In their respective works and publications, both Albers and Itten present a series of experiences which demonstrate thorough investigation methods of the transient character of colour. These approaches to a study of colour inclusive of its “deceiving” characteristics, focusing mainly on artistic considerations are a departure point for the elaboration of our portraits⁴.



Previously in this *énoncé*, we have uncovered how colour charts and palettes have been inherent actors of a shift in the consideration of colour as separated from its lighting, context and its matter. Through these case studies, we distance ourselves from these traditional tools for colour representation. We construct our investigations from observations and experiences, through a method which will be developed further in the next pages.

An important part of these two case studies and the approach taken towards their colours is based on the method developed at *Haus der Farbe*, and described in the book “Colour Strategies in Architecture”⁶.

Some comments on Lausanne

Before going any further, let us introduce a few generalities about Lausanne's natural context which take part in creating the larger scale conditions of both of the case studies.

Lausanne is situated on the gently sloping northern shore of the *Léman*, naturally demarcating the city's southern boundary. The city's altitude varies approximately 300 meters between its lowest and highest points, with the historical centre sitting atop a plateau at around 500 meters above sea level.

The topographies on the eastern and French sides of the lake are extremely pronounced, rapidly ascending from the lake to the Alps, creating distinctive and prominent skylines. A collage-like assembly of mountain layers, each with its unique play of light and intensity.

The gradual descent towards the lake, coupled with secondary valleys carved over time by former and present riverbeds, can be perceived as two overlaid topographic layers within the Lausanne landscape. This layered configuration establishes a unique interplay between the city, the lake, and the surrounding views, allowing the latter two to be visible from several kilometres away. These topographies also offer specific relationships between buildings themselves.

Image - Photography of Lausanne and its typical light. Taken on a morning of December 2023, from the shore of the *Léman* in Morges.



In regards to colour, the proximity to a large body of water creates special seasonal lighting conditions. In winter, the cold air often creates a misty atmosphere, which, combined with the low sun, results in a diffuse white light. This light often reflects on the lake, thus increasing the overall luminosity and reducing contrasts.

Choosing sites

The process was carried out in two sites within the city of Lausanne, the *place Arlaud* and the *pétanque du Tunnel*. The number of sites stemmed from, on the one hand, the enrichment of the investigation and, on the other hand, the aim for variety in the readings.

These two sites were chosen within the public space of the city to allow for accessibility and facilitate observation. Each of them resembles a constellation, defined by an aggregation of buildings from various epochs, heights, owners, and programs, with various relationships to the city centre. They were not chosen for their colours, but rather for their sizes, spatial organisations and uses. Both constellations acquire their “ensemble” character from the spatial organisation of buildings around a public, accessible area.

The *place Arlaud* is a slow moving space alongside a frequently used pedestrian street of the old town. Although it can also serve as a thoroughway, it is mostly experienced as a “waiting room”. For adults watching over kids playing at the playground, for spectators of the neighbouring theatre, for students of the adjacent music school, or for any passer-by simply taking a break from the busy circulation.

The *pétanque du Tunnel* constellation can be read as a residual space of the urban fabric, it has an outdoor seasonal use as a *pétanque* ground in summer which pauses in winter. Because of the pronounced topography of the zone, circulation in the area is limited. The space is therefore mostly experienced from the above sidewalk running alongside it, similar to a balcony.

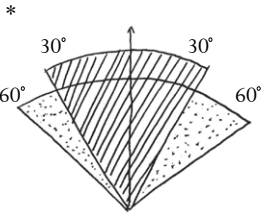
Image - Orthophoto positioning the two sites within the city centre of Lausanne.

On the top right the *Pétanque du Tunnel* constellation, on the bottom left the *Place Arlaud* constellation.



Because of their particularities, the two case studies are used as explorations of fundamentally different experiences of colour. Their similarities, however, allow us to have somewhat of a common ground when dealing with the elaboration of a method common to both.

Defining views



/// Colour recognition.

••• Binocular vision.

The research is based on representative views of each case study, which stem from on-site observations on uses, organisations, passages and fixtures.

We chose an angle of 60 degrees to trace the view in plan, corresponding to the average angle of colour recognition of the human visual field*.

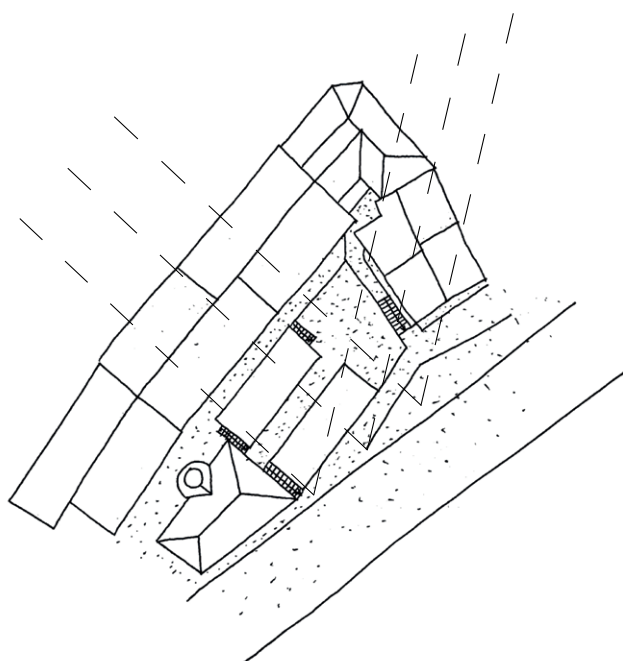
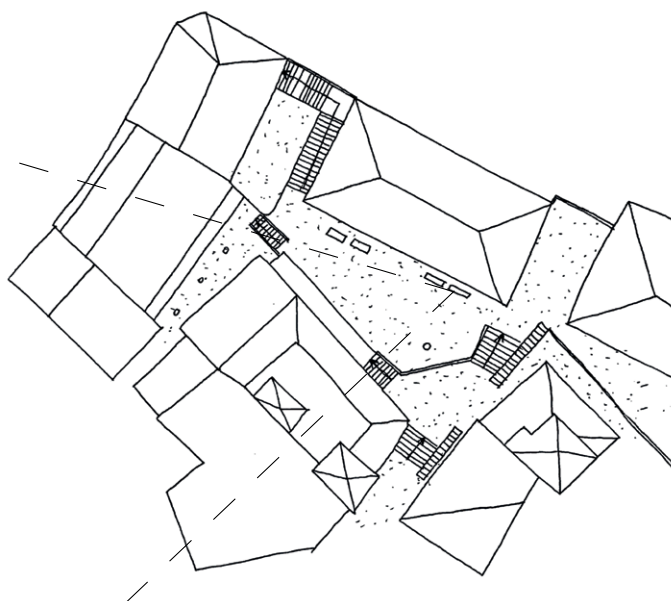
In the case of the *place Arlaud*, we elaborated on a static view, positioned from one of the fixed benches, looking toward the south-west. This view allowed us to explore the important contrasts between building layers and orientations.

In the case of the *pétanque du Tunnel* however, we searched to elaborate on an experience of colour in movement, positioned from the above sidewalk, looking towards the north-west. The serie was used to integrate the dynamic feeling of the pedestrian movement.

Image - On the top the *Place Arlaud*, on the bottom the *Pétanque du Tunnel*.

Diagram of the two sites studied, illustrating the level differences, the orientation of facades and the organisation of the constellations.

Added with dashed lines are the investigated views.



Recording colour

The next step was the site-specific task of observation and recording of colours. This task relies on perception, comparison and personal experience. It is also an important step in terms of abstraction. Detailed below are a series of decisions which were taken on site, and influenced the outcome of the research.

The collection of colours was done by comparing a colour chart to each one of the facade elements and finding the corresponding nuances. While acknowledging the limitations of using colour charts that we have expressed in the second chapter of this *énoncé* in terms of materiality considerations, we estimate comparison to be the most effective and precise way to note colours*. To react to the loss of information induced by the tool, we have developed a series of mechanisms to include materiality in the recording.

* "A factual identification of colours within a given painting has nothing to do with a sensitive seeing."⁷

Where texture created noticeable shadows on the surface of the facade, which were visible from the points of observation, the colour was decomposed into the darker and the lighter colour. Where texture was too fine to be noticeable however, the slight differences in colour were averaged into one. When the texture stemmed from a raw material, the task required more abstraction. Each colour recorded was accompanied by annotations on textures, materials, surfaces and other notable characteristics.

Images - Photographies taken on the *pétanque du Tunnel* site, illustrating the process of colour recording.

While proceeding to the recording of colours, attention was put towards keeping as many environmental constants as possible. The colours were all recorded over two mornings, one for each constellation, during the late autumn of 2023. The weather was overcast in both cases, typical for the end of year in Lausanne, with crisp air temperatures ranging from three to six Celsius degrees. These climatic conditions resulted in diffused and white natural lighting conditions, which were similar on the two days.

The different orientations of facades play a crucial role in the colour perceived on-site and on the evolution of this colour throughout days and years. How this notion of orientation was included in the recording was quite simple. We proceeded to the comparison directly in the condition of the facades, placing the colour chart in the same exact orientation on the elements to see its reaction to the lighting. Thus incorporating experience of orientation and lighting in the colour at the given time of the recording. The time of the day as well as the orientation of each facade are precised alongside the portraits to give indications on the position of the sun and inform on the potential variation of the colour during a complete day.



Reproducing colour



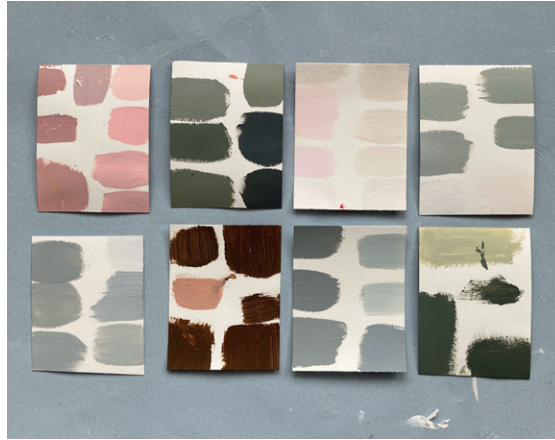
In a later phase, the colours recorded on-site were mixed in the atelier, in a space with natural lighting only. The mixtures were created with acrylic paint, an easy-to-use, long-lasting, light-resistant medium allowing for a durable result in terms of colour. This step aimed to create papers of hues as close as possible to the ones observed on-site at the time of observation. The colours obtained were first tested on small sample-sized papers and left to dry to verify their accuracy. Once this was validated, the mix was spread on a larger sheet of A4 paper and left to air dry.



The choice of working with analogue instead of digital tools for colour matching stems from the differences between colour systems. Digital screens use the additive RGB colour scheme, standing for red, green and blue, which all other spectral colours are derived from. The overlapping of pure lights of these three colours produces white light. Physical colour, however, uses subtractive colour schemes. In the subtractive colour schemes, cyan, magenta and yellow are the primary colours, and the combination of these darkens the mixture by reducing the amount of reflected light⁸.

Images - Photographies of colour swatches taken in the atelier.

Physical paint was thus used to reproduce the observed colours in order to understand the pigments and the compositions of the tints. Working with physical painted papers also allowed us to approach the next steps of composing portraits and observing interactions much more intuitively and accurately.



Setting proportions

After the reproduction of colours, a moment was taken to define the proportions of each facade within the chosen view. This layer of formal measurement is introduced to anchor the exploration in its concrete spatial organisation and create an objective frame that accommodates for exploration of sensible data on colour. Facade lengths were measured in plan and heights were estimated from floor numbers. The principal goal was to reach an order of magnitude of proportions to build the base of the portraits.

Composing portraits

The composition of portraits was the last step of the method and was explored at first in the *place Arlaud*. The portraits were created on A5 supports and were begun by setting the previously established proportions. Within these formal proportions, space was left for intuition, memories and experimentation on the basis of the recorded experiences. Important interactions between colours were set in order to explore on paper the contrasts and blendings.

Orders of layerings were also explored to integrate the stratification and depth of the view. Creating shadows where relief was observed and continuity elsewhere.

Paper was never used twice in the same collage. If two elements were of the same colour and material, it was created with one single element.

The resulting portraits are specific and concrete mappings of colour experimented in perceived space. They aim at uncovering interactions of colour in space through perception, movement and matter.



Images - Photographies taken in the atelier, illustrating the process of composing the portraits with the different painted papers.



Subtleties within polarities



Image:

Place Arlaud on the afternoon of the 10th of January 2024.

Portrait:

Place Arlaud on the morning of the 20th of November 2023.
Recordings made between 10:00 and 12:00.

This portrait uncovers the subtleties that compose the interaction of the *Boulimie theatre* and the *Fraternité*, superimposed through layers of space. Going beyond the initial dominant contrast of the two facades, it provides a discussion ground for the importance of coloured details, proportions, homogeneity and orientation. The contrasted adjacency of the two facades blurs the notion of depth provided by the spatial organisation and emphasizes the size of the homogenous *Fraternité* building.



Rythm in contrast

Image:

Pétanque du Tunnel on the afternoon of the 21st of October 2023.



Portraits:

Pétanque du Tunnel on the morning of the 20th of December 2023. Recordings made between 10:00 and 12:00.

These portraits bring forward the impact of texture and depth on the perception of colour and rhythm in the *pétanque du Tunnel* constellation. The interaction between the large and homogenous surfaces on the left of the portraits and the differentiated elements on the right allows an understanding of the rhythmicity intrinsic to colour variation and shadows.



Portraits:

Pétanque du Tunnel serie
on the morning of the
20th of December 2023.
Recordings made
between 10:00 and
12:00.

1 - *Place du Tunnel 4*

Orientation SE

2- *Place du Tunnel 5*

Orientation SE

3 - *Place du Tunnel 6*

Orientation SE

4 - *Rue de l'Université*

17 Orientation SO

The thin vertical stripe of the *place du Tunnel 6* building strikes in regards to its proportion. The combination of its colour and shadows creates depth, fragments the reading of the whole and allows for the distinction of buildings. This stripe guides the eye and enhances the feeling of movement throughout the series. It accentuates the change in orientation by enhancing the difference between adjacent colours.

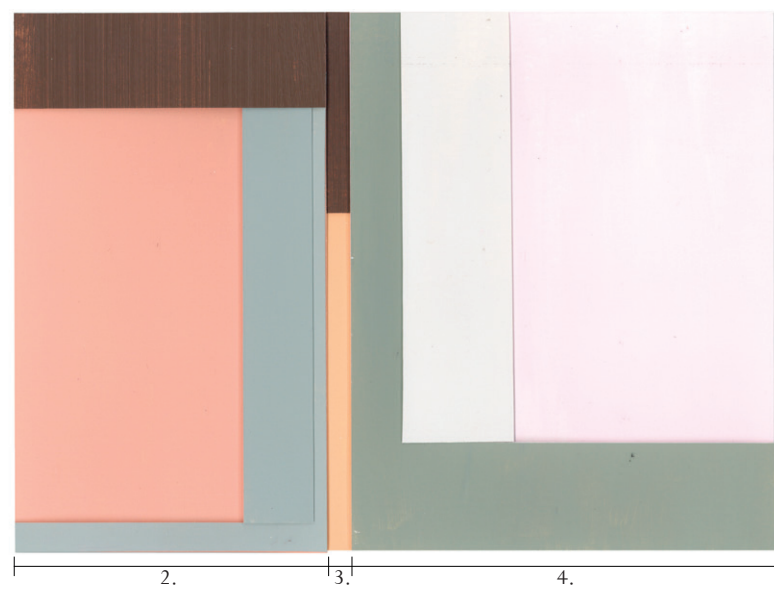
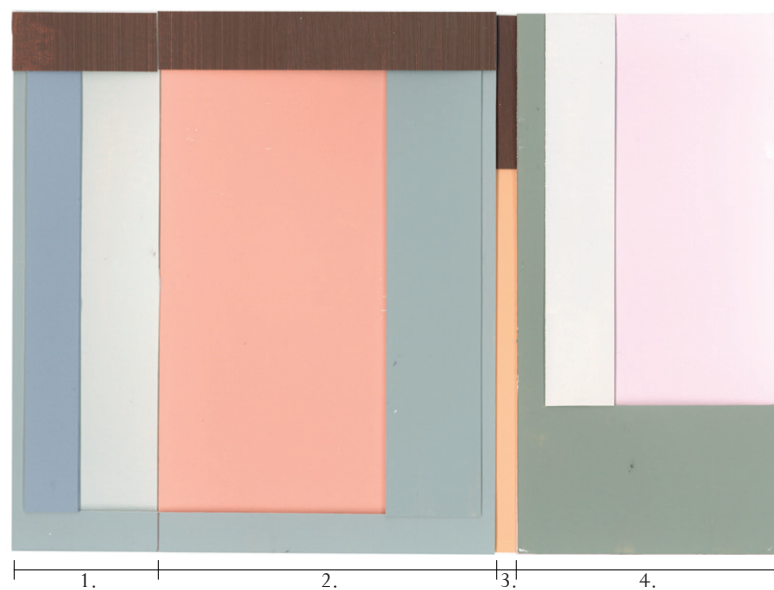
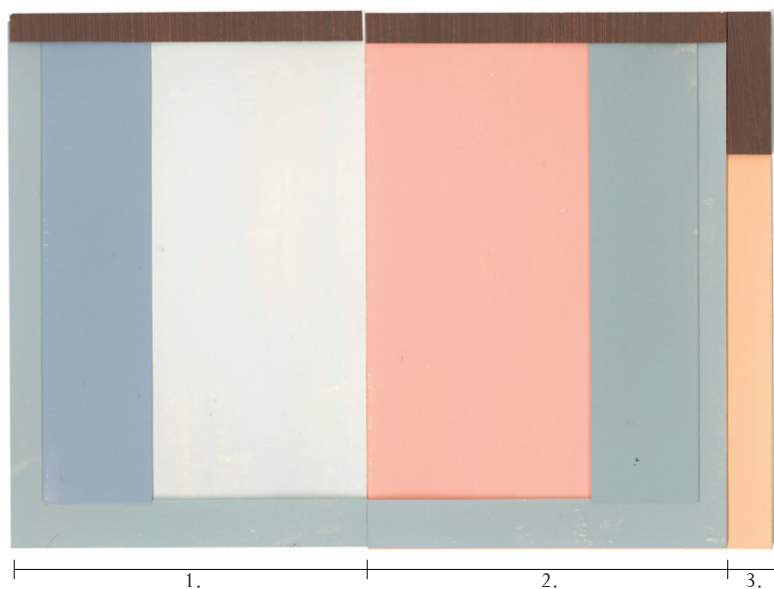




Image - Photography of the research pannel in the atelier.

Notes

1. Josef Albers, *Interaction of Color* (New Haven & London: Yale University Press, 1963), p. 68.
2. *Ibid.* p. 8
3. Anneliese Itten, Préface, In *Art de la Couleur, édition Abrégée*, Johannes Itten, trans. Sylvie Girard (Ravensburg: Otto Maier Verlag, 1961; Dessain & Tolra, 2018), p. 5-6.
4. Josef Albers, 1963, *Op. Cit.*, p. 5
5. *Ibid.*
6. Fiona McLachlan, AnneMarie Neser, Lino Sibillano, Marcella Wenger Di-Gabriele, Stefanie Wettstein, *Colour Strategies in Architecture*, (Zürich, 2015). p. 15-25.
7. Josef Albers, 1963, *Op. Cit.* p. 5.
8. Laura Perryman, *Couleurs, histoire, usages, secrets*, trans. Claire Reach (Octopus Publishing Group, 2021), p. 6-46.

To Conclude

Towards an architectural consideration of colour

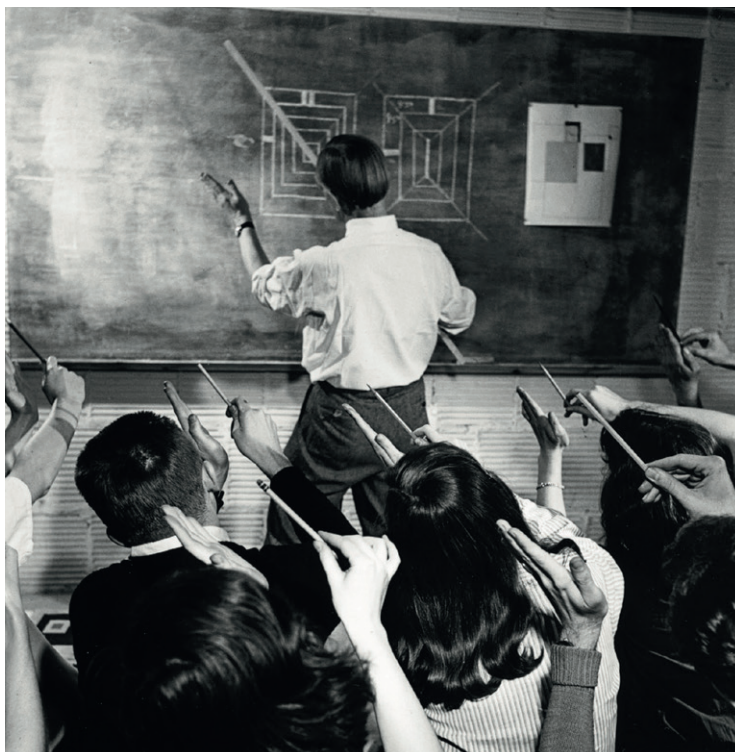
Through this research, we were able to explore some of the origins of the colouring of facades in the urban scene of Lausanne. Tracing its evolution from a given to a choice, we were able to discover the social and political complexity behind the current debate on facade colour and its regulation.

While acknowledging the importance of a thorough understanding of context and culture for decision-making on colour, we argue that these are only part of the factors that should be considered in the study of facade colours. While an increasing number of municipalities are interested in the colours of their facades as cultural heritage, few are searching for objective and tangible ways to study the effects of these colours on the perceived space of their cities.

As a reaction to these findings, we have explored the possibilities for an alternative tool for the reading of colour in perceived space, which would be inclusive of its site-specific complex and transient characteristics. By doing so, we have intended to detach our approach to facade colours from solely subjective or restrictive historical considerations.

Image - Photography taken during one of Josef Albers' classes. It pictures him and his students taking part in one of his experiment on the interaction of colour.

We consider this experimental approach to the study of colour as a work in progress. With limited resources, we were able to reach a deeper level of understanding of the functioning of colour in our two case studies. The exposed portraits are to be seen within the context of this body of work, not as results but as part of the research. In combination with the other chapters, they form a whole.



We would like to close the last chapter of this *énoncé théorique* by considering the further possibility of an experimental approach to colour in architectural practice.

This body of work is thought as a ground for our diploma project for which we intend to use our research for the transposition of an inclusive approach to colour in early phases of project development.

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List of Images

- Page 21** Attributed to Sir Isaac Newton, *Newton's sketch of his crucial experiment*, 1972. Warden and Fellows, New College, Oxford.
- Page 22** Johann Wolfgang von Goethe, *Planche n1*, 1810. In "Le Traité des Couleurs", Editions Triades, 1973, p.II.
- Page 33** Theo van Doesburg, *Construction in Space-Time II*, 1924.
Gouache, pencil and ink on tracing paper. 47 x 40.5 cm. Museo Nacional Thyssen-Bornemisza, Madrid. <https://www.museothyssen.org/en/collection/artists/doesburg-theo-van/construction-space-time-ii>.
- Page 34** Tuva Kleven, *Onkel Tom's Hütte Siedlung*, Arch. Bruno Taut, 1925-33, Photographed in 2015.
- Page 37** Arnold Brügger, *Die Farbige Stadt*. Poster, 127,5x90cm, for the Kunstgewerbemuseum Zürich, 1927.
<https://www.emuseum.ch/en/objects/160935/die-farbige-stadt--kunstgewerbemuseum-zurich>
- Page 38** Leiba Antokol'skii, *three schemes for the repainting of Moscow*, Reconstruction by A. V. Efimov, 1978.
Reproduced in: A. V. Efimov, "Formirovanie tsvetovoi sredy goroda", "Arkhitektura SSSR", 1978, no. 9, p. 7.
- Page 39** J. Lassailly, L. Bichebois, *La Coaltrine, peinture émail*. Leaflet, 13x10cm, two-folds, 1913. Bibliothèque Forney, Paris. Reproduced in: A. Varichon, "Nuanciers", 2023, p.101.
- Page 43** *Carte des nuances Ripolin*, card, 10,5x17cm, two-folds, Paris 1920s. Bibliothèque Forney, Paris. Reproduced in: A. Varichon, "Nuanciers", 2023, p.172.
- Page 55** Josef Albers, *Oscillating A*, 1940. Kulturstiftung der Länder.
The Collector. <https://www.thecollector.com/what-was-josef-albers-famous-for/>
- Page 77** Genevieve Taylor, *Josef Albers teaching at Black Mountain College*, ca. 1946.
© Peter Reznikoff. Reproduced in "Intersecting Colors, Josef Albers and his Contemporaries", Vania Malloy, 2015, p. IV.

A few more thank yous

I would like to extend my gratitude to the passionate people I got to meet through this work, and who helped me tremendously in its creation.

Namely Audanne Comment, Lova and Martine Golovtchiner, Marcella Wenger di Gabriele, Maria Henz-Zurbuchen, Roger Simond, Tania Grace Knuckey, and Xavier Thalmann.

Thank you for taking the time to share some of your knowledge with me, both about colour and about your respective practices.

