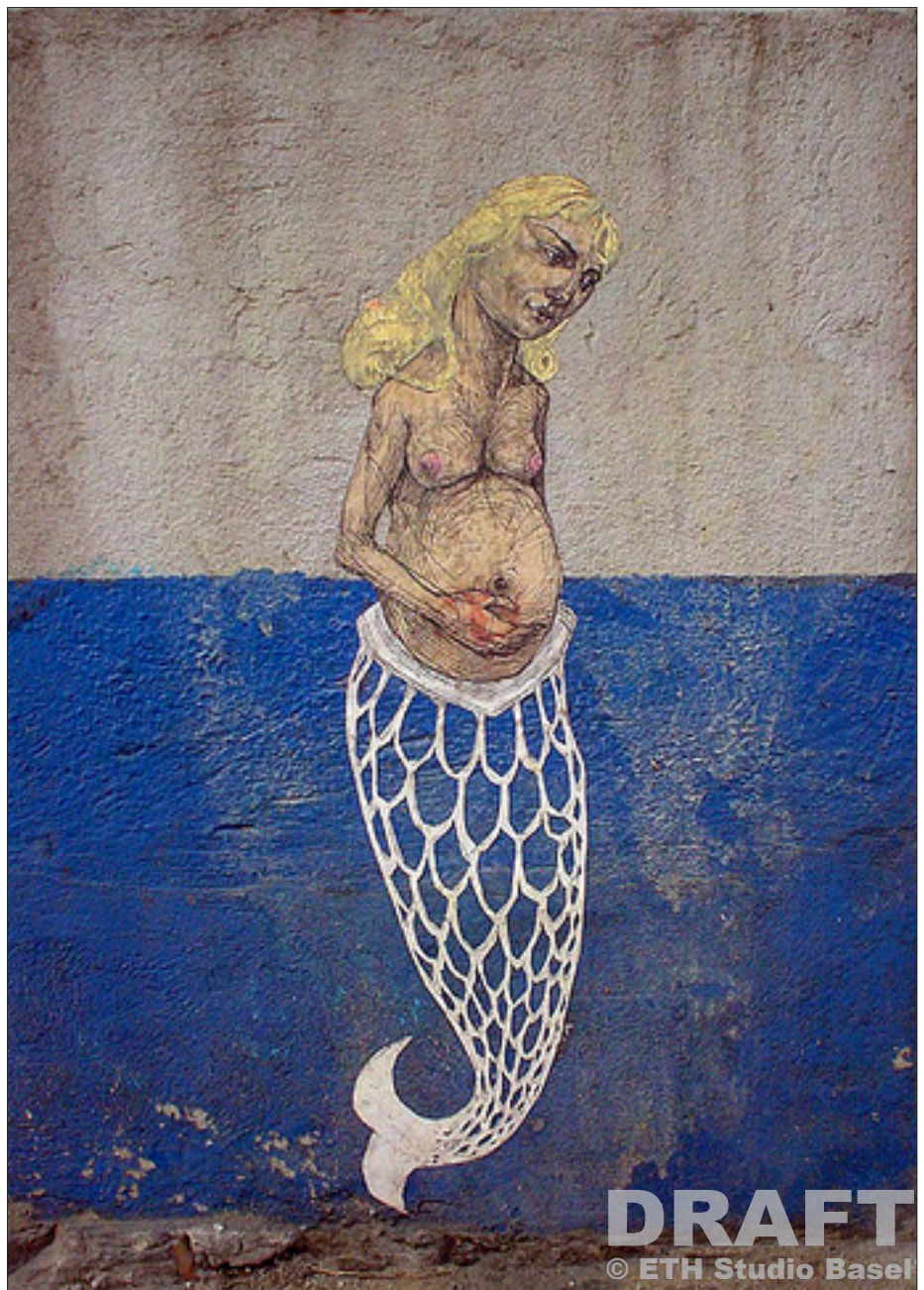


URBAN MEADOWS

RETENTION AS A CHANCE FOR URBAN DEVELOPMENT





ETH Studio Basel

Research about the role of the Rhine
in an alternative master plan for Metro
Basel

DRAFT
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URBAN MEADOWS

DRAFT ETH Studio Basel _ 2007

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Prof: J. Herzog & P. de Meron _ Ass: S. Hartmann & M. Herz _ Stud: Dan Baciu & Andri Werlen

THE RHINE AS IDENTITY

„SAY YES TO THE RHINE“

Photo Gallery: From *Rheinfelden* to *Kembs*
The Rhine in Metro Basel
Rhine Cities
Water Cities
Lost Rhine Access
New Urban Water Fronts
Conclusion Sketch

FLOOD DANGER

RETENTION AS A CHANCE

Flood
Canalisation
Flood Danger along the Upper Rhine
Retention along the Upper Rhine
Retention Examples
Retention Use
Conclusion Sketch

ATTRACTIVE MEADOWS

NATURE AND LEISURE

Meadow Landscape
Meadows vs. Canalisation
Existing Use
Green
Water
Agriculture
Leisure
Conclusion Sketch

RISING TOPOGRAPHY

PROTECTING INFRASTRUCTURE

Topography
Dams
Urban Development
Conclusion Sketch

VISION 2077

AN UPPER RHINE STRATEGY

Combining Interests and Potentials
Steps and Scenarios
Retention 2077
Urban Meadows 2077
Sections
Zoom In
Typologies
Impressions
Zoom Out

THE RHINE IN METRO BASEL

Photo Gallery: From *Rheinfelden* to *Kembs*

The Rhine in Metro Basel

Rhine Cities

Water Cities

Lost Rhine Access

New Urban Water Fronts

Conclusion Sketch



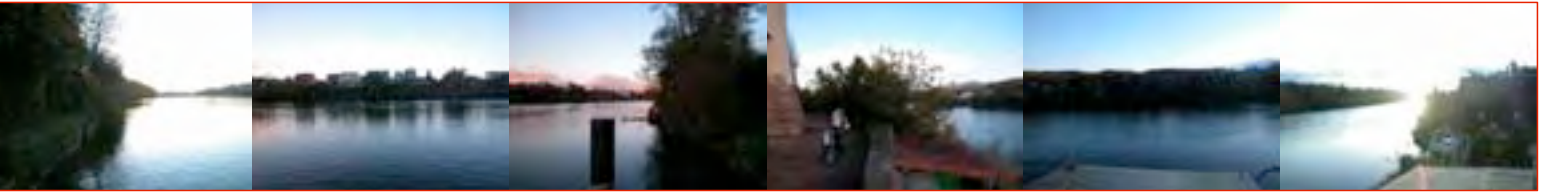
Rhein aufwärts

Rhein abwärts



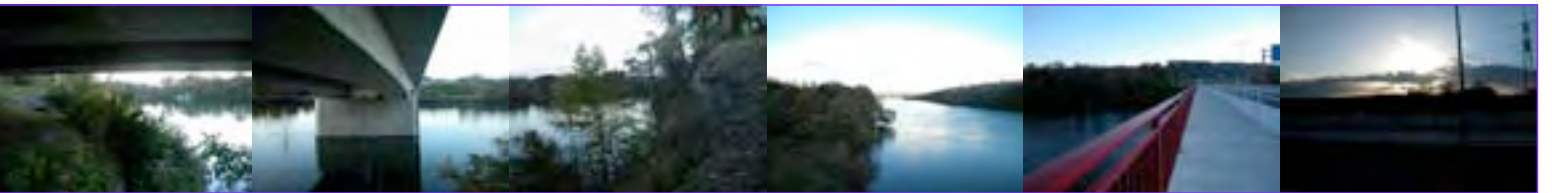
Parkhaus, Restaurant

Promenade Rheinfelden



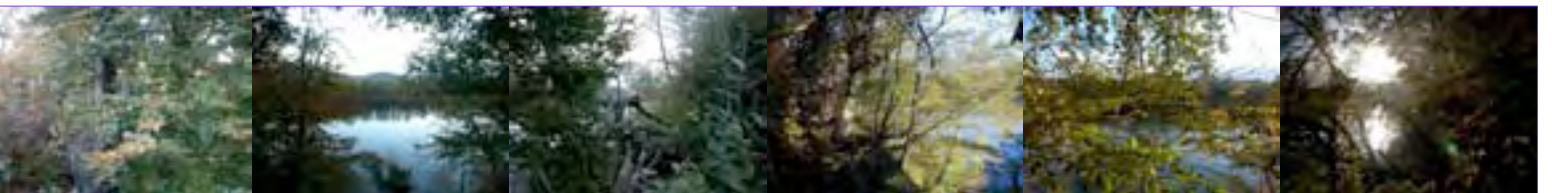
Kusteisbahn

Kirche Rheinfelden



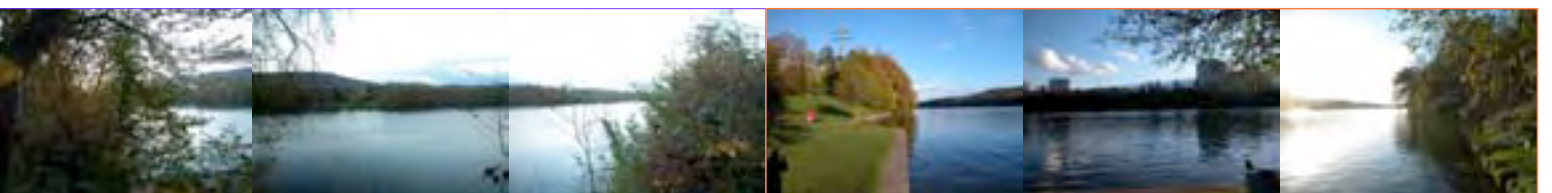
Zoll

Zoll



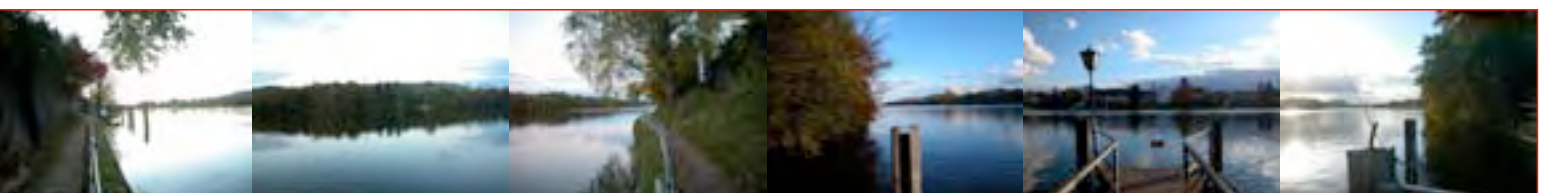
Industrie, Lagerräume

Wald am Rhein, Käranlage



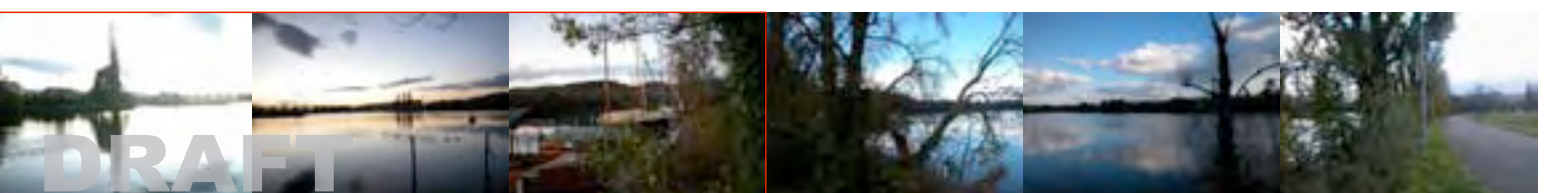
Uferweg, Industrie

Freizeitanlage Hertner Loch



schmaler Rheinweg, Fähre Kaiseraugst

Fähre, Camping, Wald



Freizeitanlage, Camping

Grün

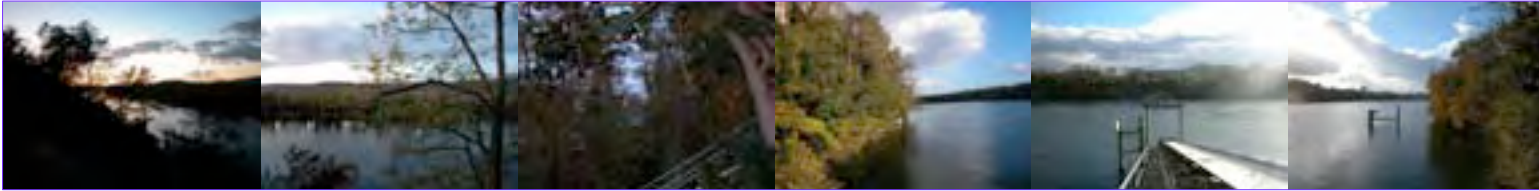
DRAFT

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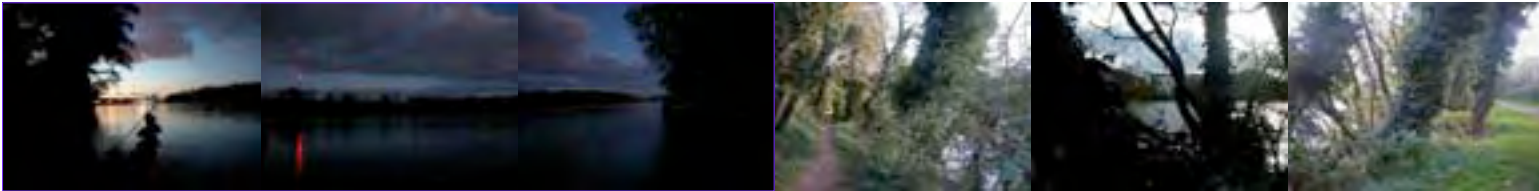
Uferweg, Fischerei, Industrie, Kieslager

Landwirtschaft, Wohnen, Industrie, Grün



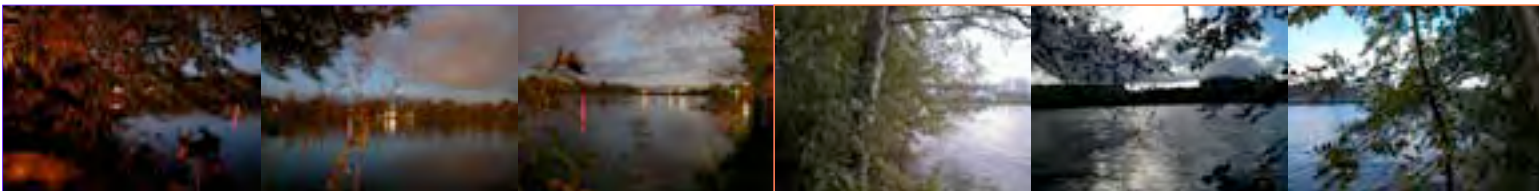
Hauptstrasse, Industrie, Gewerbe

Wald am Rhein, Kiesgrube



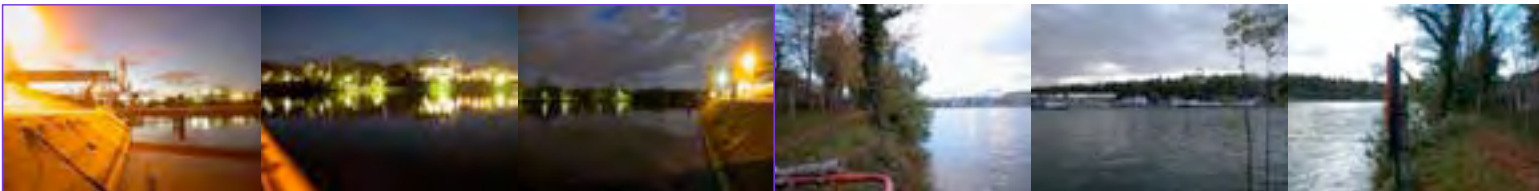
Park, Novartis

Wald am Rhein, Landwirtschaft



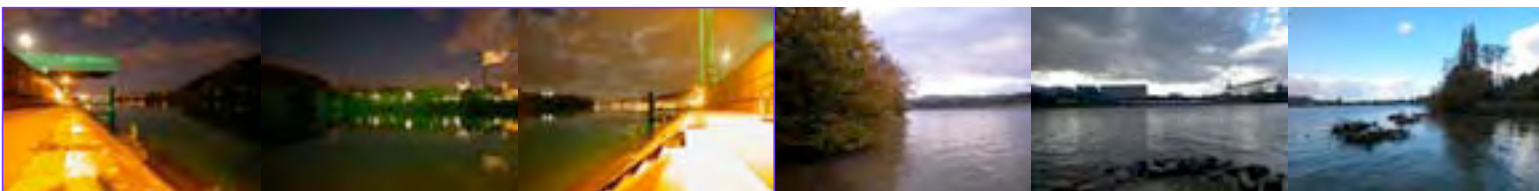
Weg am Wasser, Industrie

Bad, Kläranlage



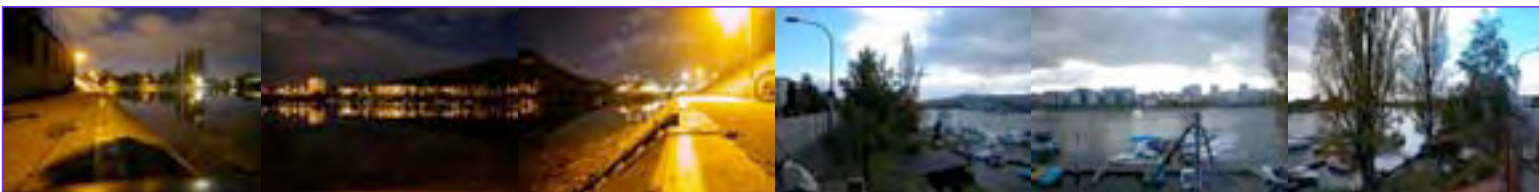
Weg am Wasser durch Hafenaereal

Weg am Wasser, Wald



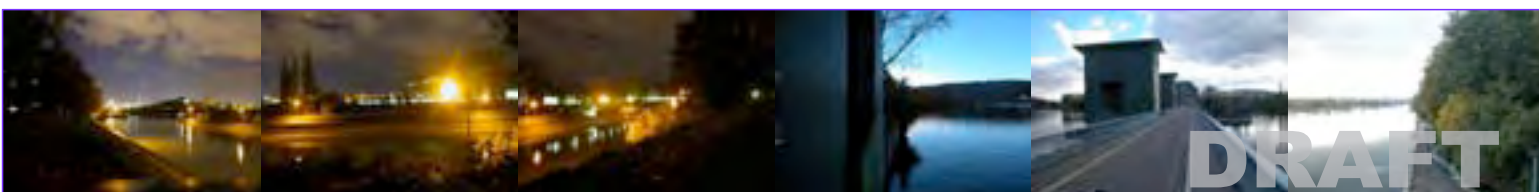
Birs Terminal

Weg am Wasser, Wald, Schräbergärten



Hafenaereal

Grenze deutsche Seite



Schleuse Birsfelden

Kraftwerk Birsfelden

DRAFT
© ETH Studio Basel



Wohnen am Wasser, Quartierstrasse

Solitüdepark, Promenade, Kinderspielplatz



Grossbasler Promenade

Schaffhauser Rheinweg



Münsterhügel

Kleinbasler Promenade



St. Johannis Ring, Park, Stadtmauer

Kleinbasler Promenade



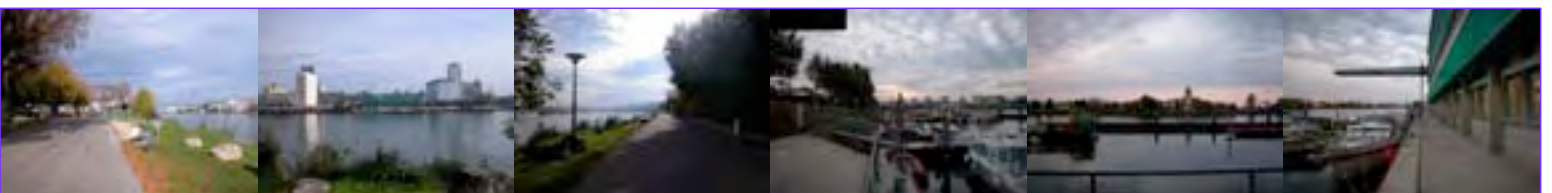
Drei-Rosen-Brücke, St. Johann Terminal

Drei-Rosen-Brücke, Novartisturm



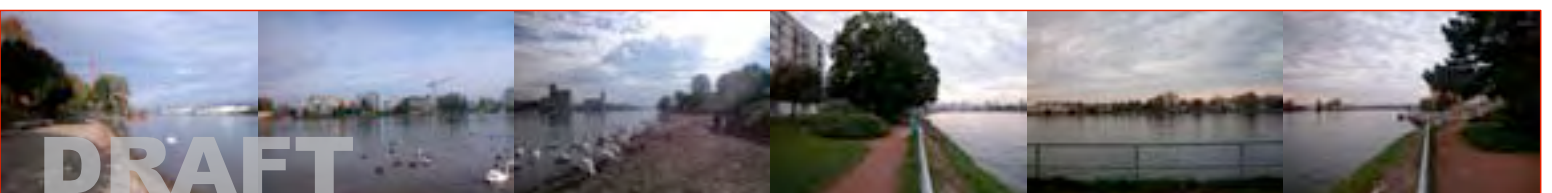
Landesgrenze Seite Frankreich, Ciba Parkplatz

Öltanks, Lager



Paroisse Reformee de Huningue

Dreiländereck, Hafen und Bars

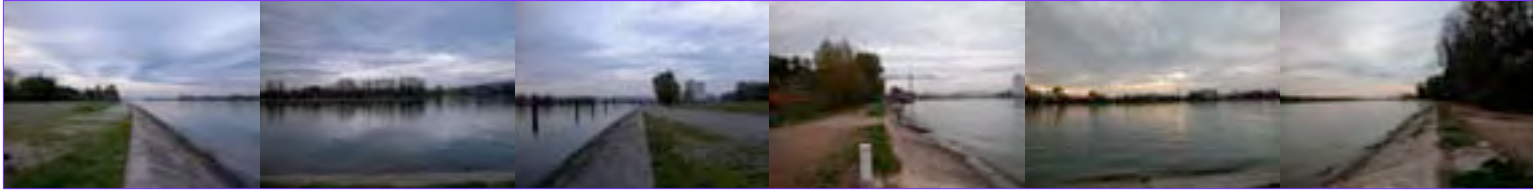


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Port Rhenan de Huningue

Hafenareal



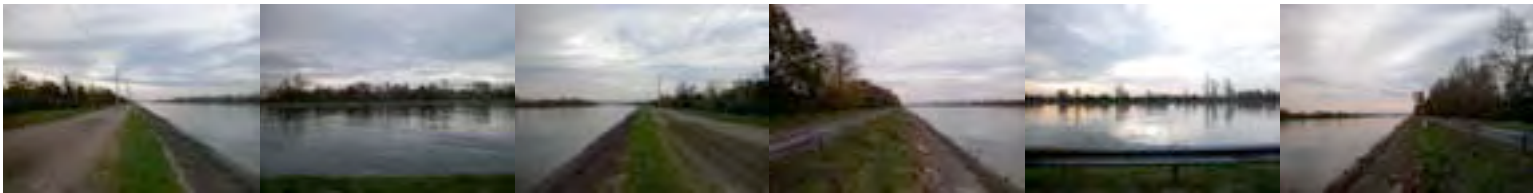
Hafenareal, unzugänglich

Lager



Kanalisierter Rhein, Camping

Kanalisierter Rhein



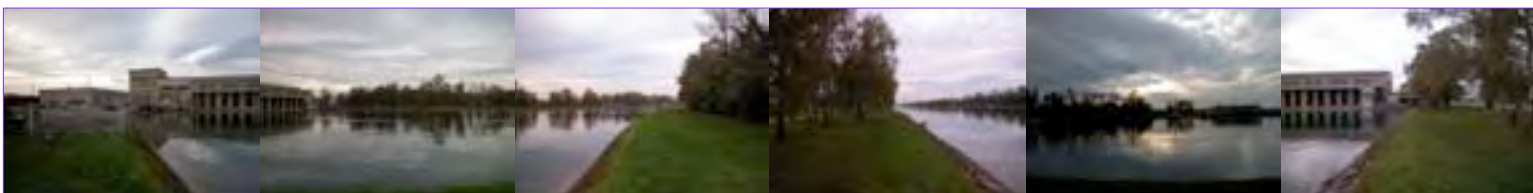
Kanalisierter Rhein

Kanalisierter Rhein



Kanalisierter Rhein

Kanalisierter Rhein



EW Kembs

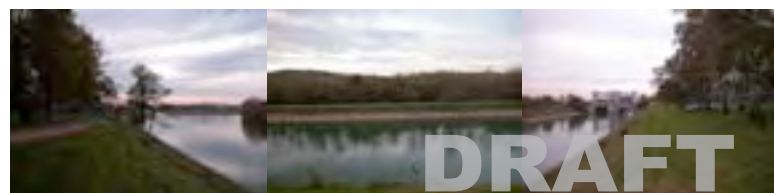
EW Kembs



Kanalisierter Rhein abwärts, Kembs

Wilder Rhein abwärts

**THE RHINE IS A UNIQUE LANDSCAPE ELEMENT.
IN BASEL IT IS AN IDENTIFYING CITY SPACE.
THE BIGGEST PART OF THE RHINE BORDER
HAS NO STRONG CHARACTER.**



DRAFT

© ETH Studio Basel
Wehr EW Kembs



OBERRHEINGRABEN

AUEN

AUEN

SUNDGAU

BASEL

SCHWARZWALD



Basel is the city where the rhine changes its character. Until Basel it flows as *Hochrhein* through a narrow valley. From Basel on, the topography opens up to the wide and flat upper rift valley where the rhine meanders in the meadows.

In the region of metro Basel there are only a few places, where people live along the waterfront of the rhine, although it is a unique landscape element and the backbone of the region.

The medieval cores of Basel, Augst and Rheinfelden have beautiful facades to the rhine, the rest of their waterfronts are used for industrial or harbour functions.

Farther on, in the north, the settlements are built on the border of the earlier dimension of the rhine before canalisation. They lost their access to the water about 200 years ago.

Another reason why they are not located directly along the rhine, could lie in the fact, that the border between France and Germany lies in the middle of the rhine.

The wide dimension of the river works only as a connecting identity with enough bridges that allow the transfer of people and goods.

RHINE CITIES



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1 Stein am Rhein

2 Diessenhofen

3 Schaffhausen

4 Eglisau

5 Zurzach

6 Basel



1



2

3



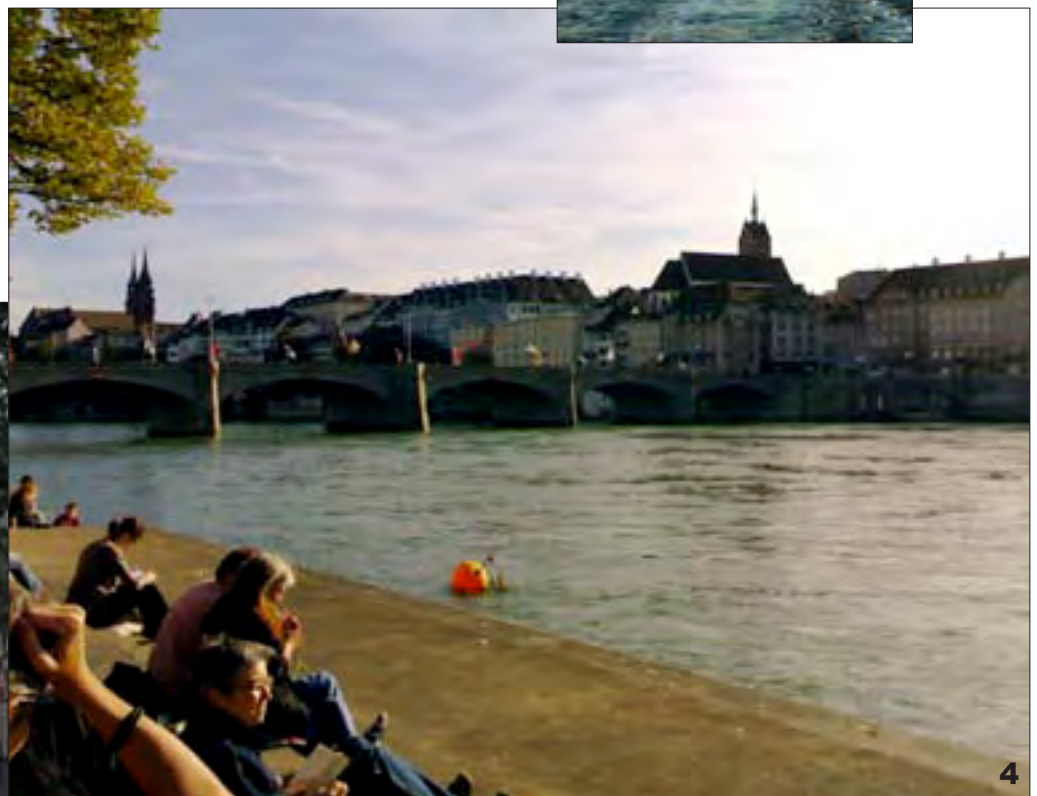
1 Venezia

2 Paris

3 Amsterdam

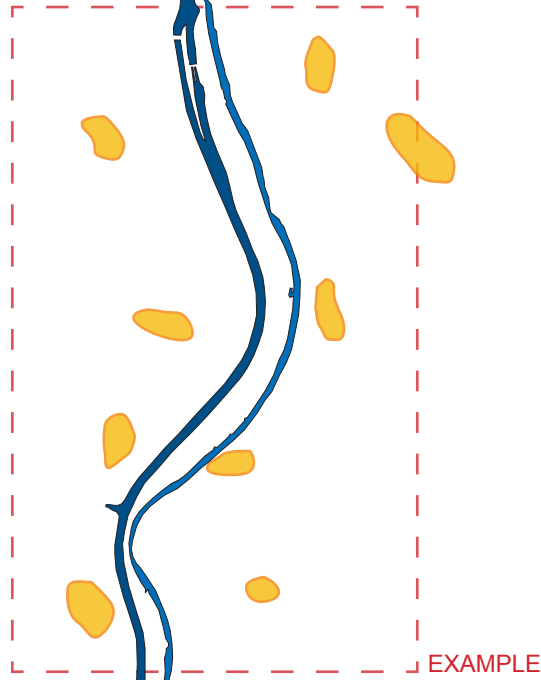
4 Basel

5 New York

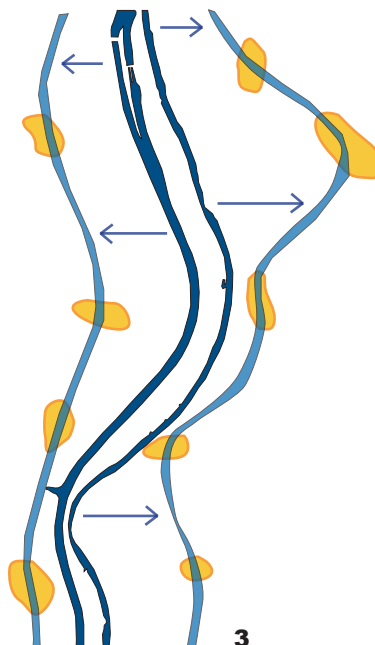
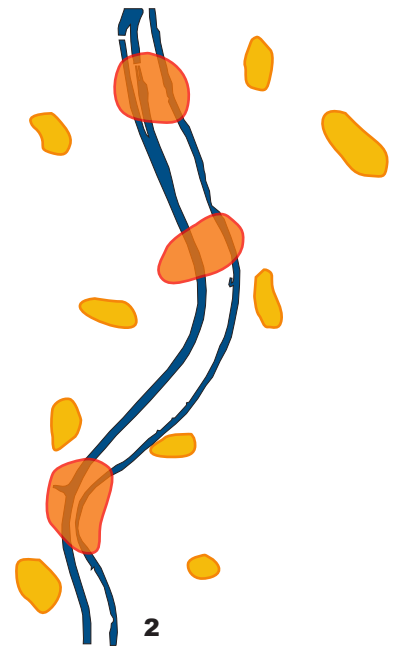
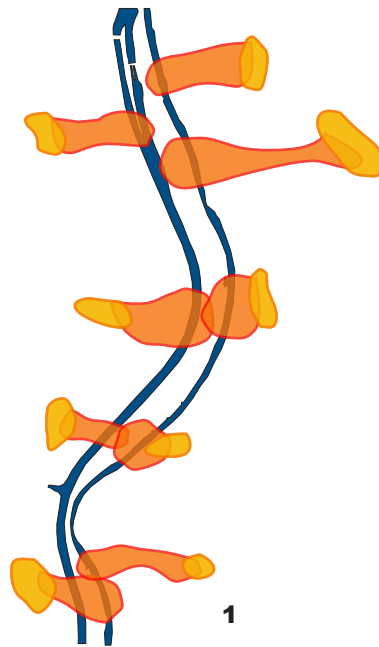


4

LOST RHINE ACCESS



EXAMPLE



1
developing the villages towards the rhine

2
creating new centres along the rhine

3
bringing the rhine to the villages

4
creating a rhine / meadow landscape

NEW WATERFRONTS



1 Hafenstadt Hamburg

The Hafen City Hamburg is a new created urban landscape in a former port area of the city. The circular form of the port area minimises distances by foot.

The buildings of high importance have been planned at highly exposed positions to the water as an attraction of the area.



2 Docklands London

The Royal Docks were transformed since the late 80ies to a commercial and cultural area with attractive apartments. The public transport is supported by a special Dockland-Railway. Canary Wharf became the new skyline of London.

3 Donauinsel Wien

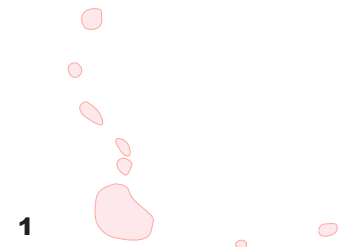
The Donauinsel is an artificially created island 22km in length between the new and the old Donau.

It is a project that joins apartments, leisure, sport, ecology, water retention and energy.

The north and south parts are more nature linked and the middle part is more park and city linked. The city surrounding this part of the donau keeps the project alive.







1 Urban drops along the rhine

According to the rhine cities in the *Hochrhein* valley.

2 Urban development in the rhine valley

The Urbanity follows the meadow edges

3 Cityscape of Basel

Potentials towards the valleys

FLOOD DANGER

Flood

Canalisation

Flood Danger along the Upper Rhine

Retention along the Upper Rhine

Retention Examples

Retention Use

Conclusion Sketch





Bundesrat für
Gewässerschutz

Versammlungen
1/2008

Die richtige Begründung gegenüber der Gesellschaft muss heißen: *„Ihr lebt in einem Hochwasser gefährdeten Gebiet und solltet euch schon immer um ein nachhaltiges Vorsorgekonzept gekümmert haben. Mit der zu erwarteten Klimaänderung wird dieses Problem mit Sicherheit eher größer als kleiner werden. Wenn ihr auch weiterhin den selben Komfort bei der Freistellung von Überflutungen durch technische Hochwasserschutzanlagen wie bisher haben wollt, müsst ihr den technischen Hochwasserschutz höher anlegen.“*

CANALISATION



Blick vom Isteiner Klotz nach Süden Richtung Basel. Gemälde von Birmann, 1840



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Rhein und Rheinsidenkanal heute. Blick Richtung Basel

UNTIL 19th CENTURY

The Rhine meanders in the upper rift valley over a distance of 6 to 10km. Its flow is in a permanent change, creating different islands in a rich meadow landscape.

- + rich fish diversity
- villages are frequently flooded

1842 - 1876

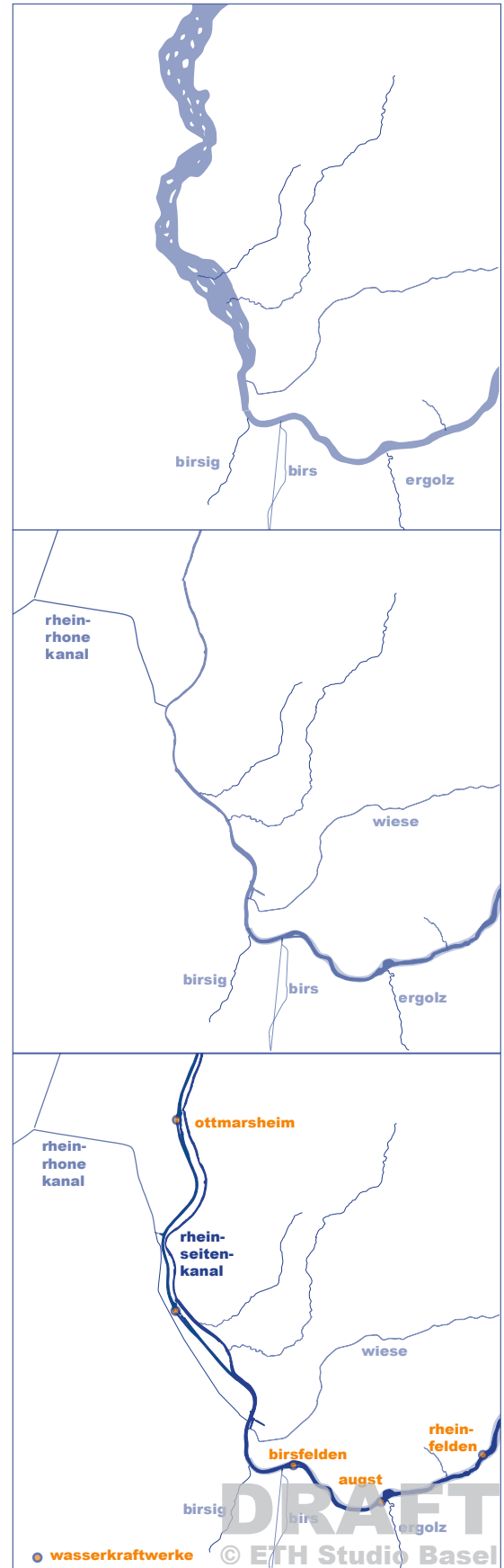
Canalisation of the upper rhine according to Johann Gottfried Tullas proposal. Rhine-Rhone-Canal (1784 - 1833)

- + easier shipping
- + less flood danger
- + more dry land for agricultural use
- + less epidemics
- destroyed meadow landscape
- less fish diversity
- flood danger increases further in the north
- unexpected depth erosion
- sinking ground-water table

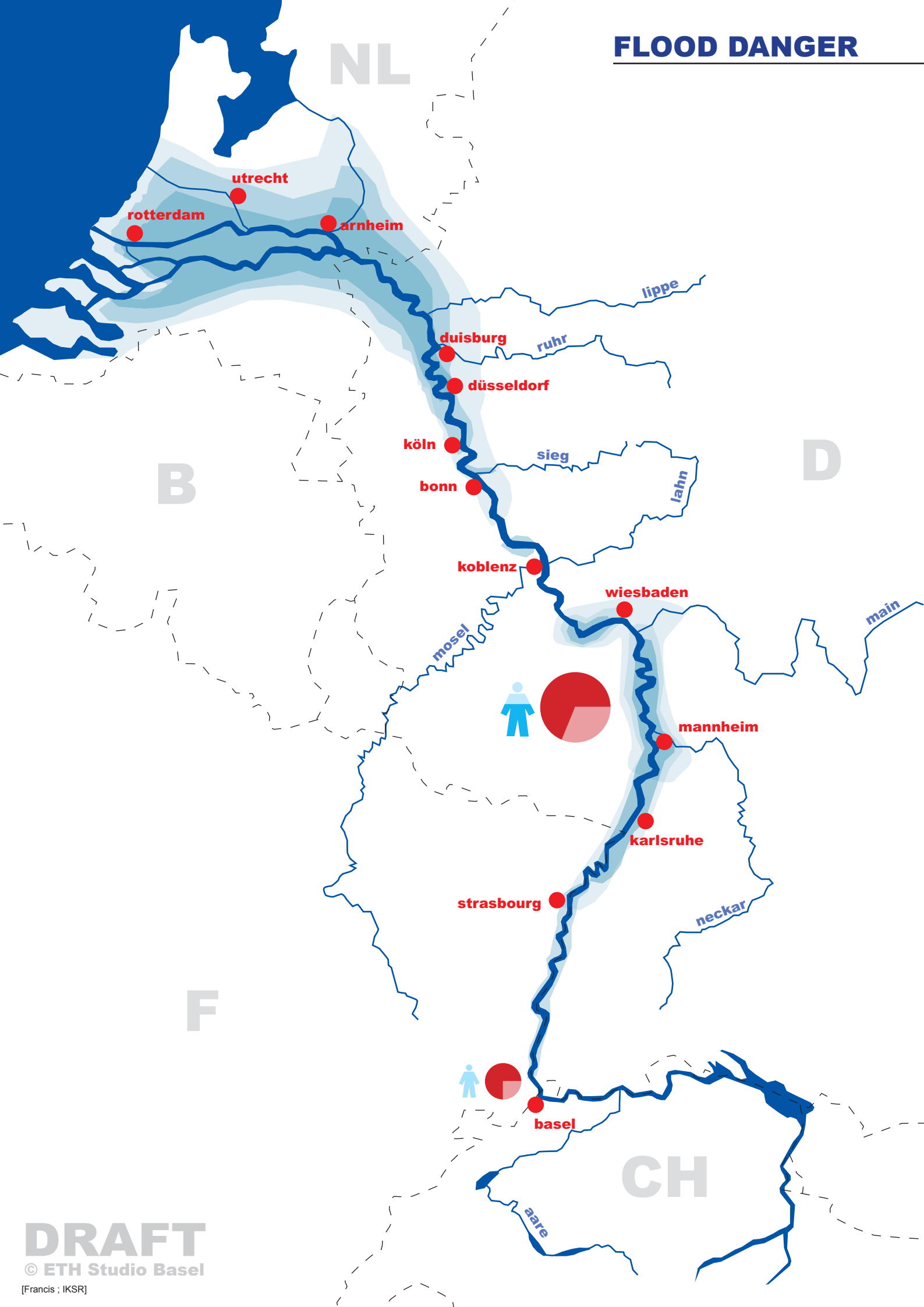
1928 - 1977

Realisation of the Rhine-Side-Canal with four water power stations and ten locks.

- + depth erosion stopped
- + water power for electricity
- + unproblematic shipping
- repeated increasing of the flood danger further in the north



FLOOD DANGER



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[Francis ; IKSR]

FLOOD

The rhine has an enormous kinetic power. The highest flood level in basel for example means more than 5000m³ per second. That means 18 mio m³ per hour. It is the 120 times the volume of the Messeturm in basel.

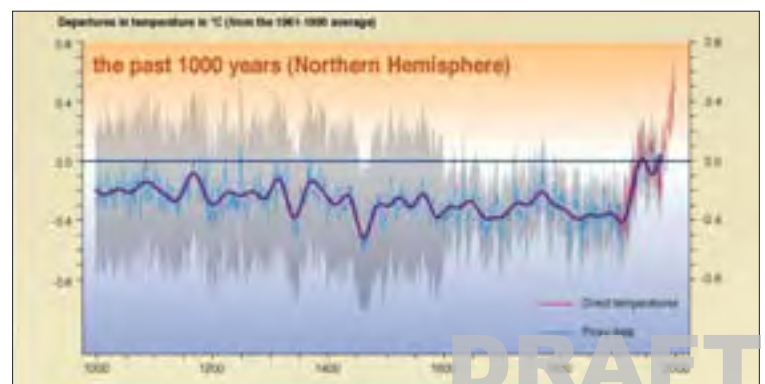
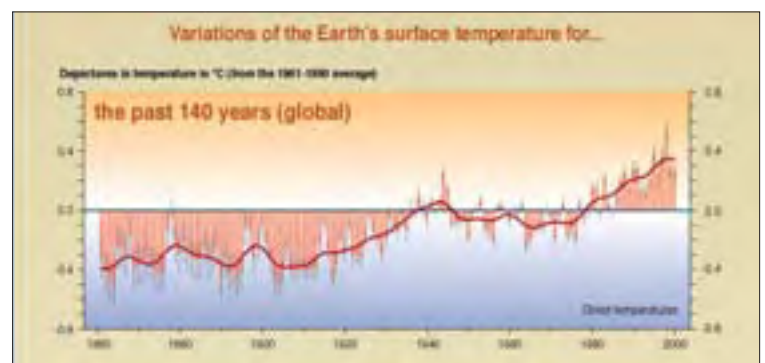
As an effect of canalisation those masses of water run much quicker down the rhine and the possibility of infiltration is extremely reduced. Because of that the flood danger increases in enormous way in the northern upper-rhine and the rhine delta.

In contrast to the inhabitants in the netherlands the consciousness for a latent flood disaster is quiet low along the upper-rhine, although experts talk about a possible super flood for many years.

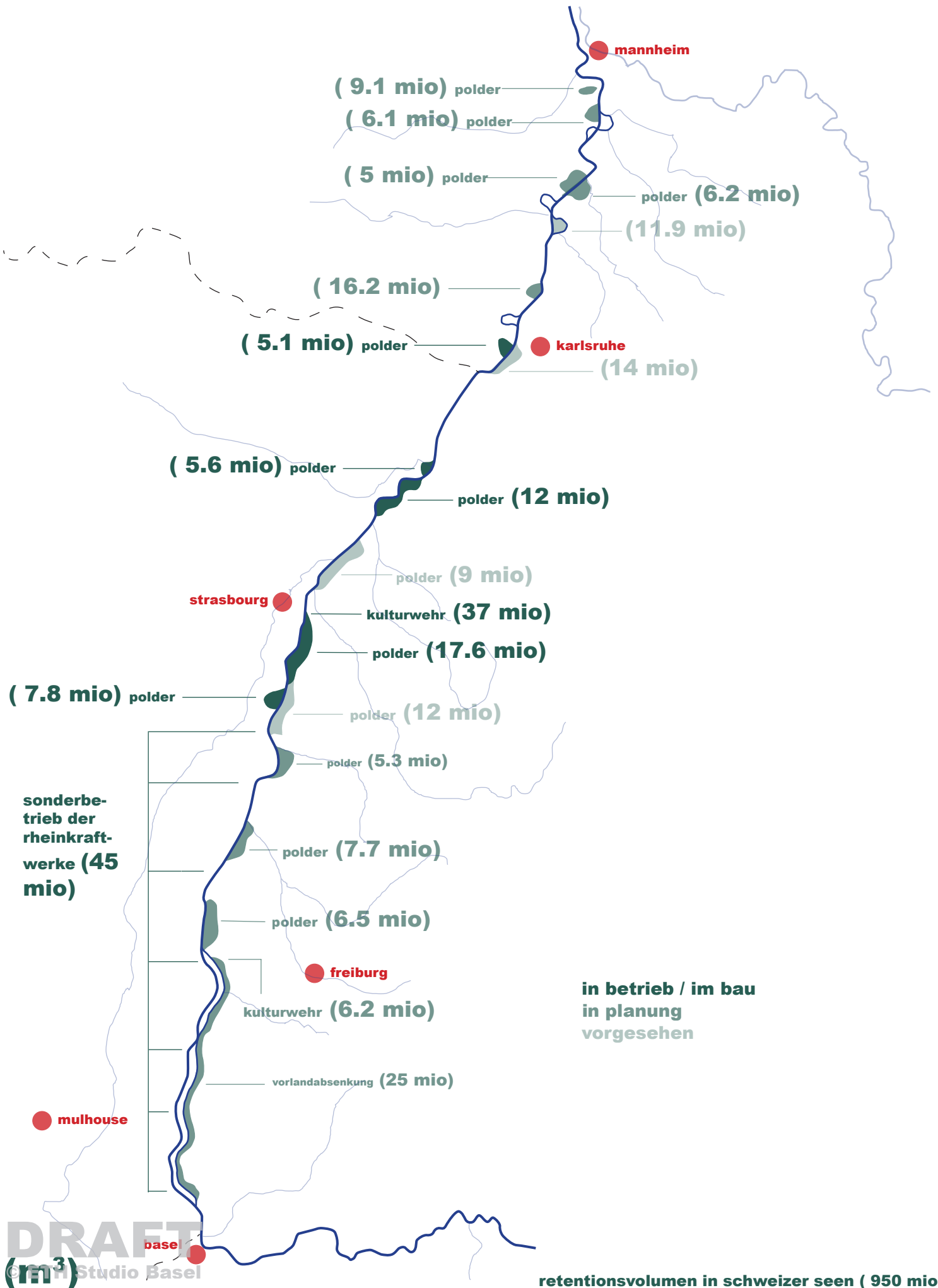
EFFECT OF GLOBAL WARMING?

Climate changed in the last decades in a way that we have to count with other values. As an effect of global warming, snow could melt already in february, and for this season experts prognose a accretion of rains. If those two things happen at the same time, we have a serious problem. Prof. Wolfgang Seiler from the Institute for Meteorology in Garmisch explains: „ Our models show, that temperature in winter and spring will increase for min. 2 degrees in the next 30 years. That means more and more intensive rain instead of snowfall. [...] In winter and spring there is almost no vegetation existing and the soil is relatively cold, so that this supplement water can't evaporate and comes as surface water into the rivers.“

In a bad case the rhine could flood a stripe of 8 km wide, some areas would be more than 4 meters below the level. Millions of people have to be evacuated and the costs of damage would be multiple of what a serious flood protection would cost.



RETENTION ALONG THE UPPER RHINE



RETENTION

1982 In a contract between all the countries along the rhine it is decided to renew the flood protection like how it was before the different steps of canalisation.

As the function of more than 90% of the natural flooding area (meadows) was destroyed by canalisation, technical retention, where parts of the meadows are flooded in a controlled system, is a effective way to lower flood level farther in the north.

255 mio m³ retention volume is needed between basel and mannheim

Only about 142 mio are built until now because projects for retention along the upperrhine mostly fail by the opposition of the communes.

so if we have to pay for relatively expensive retention projects, shouldn't we look at it from a other views than only the flood problem and renaturalisation? Isn't there a potential to combine retention with interest of urban development or commercial use?



1 polder:

Parts of the former flood area, that are surrounded by old dams. Moment of flooding and size of the volume can be controlled.

polder altenheim 1+2

area: 5.2 km²
 volume : 18 mio m³
 costs: 80 mio euro
 use: forest + agriculture

2 weir:

Like a retaining wall across the rhine that ponds the water to a higher level

weir breisach

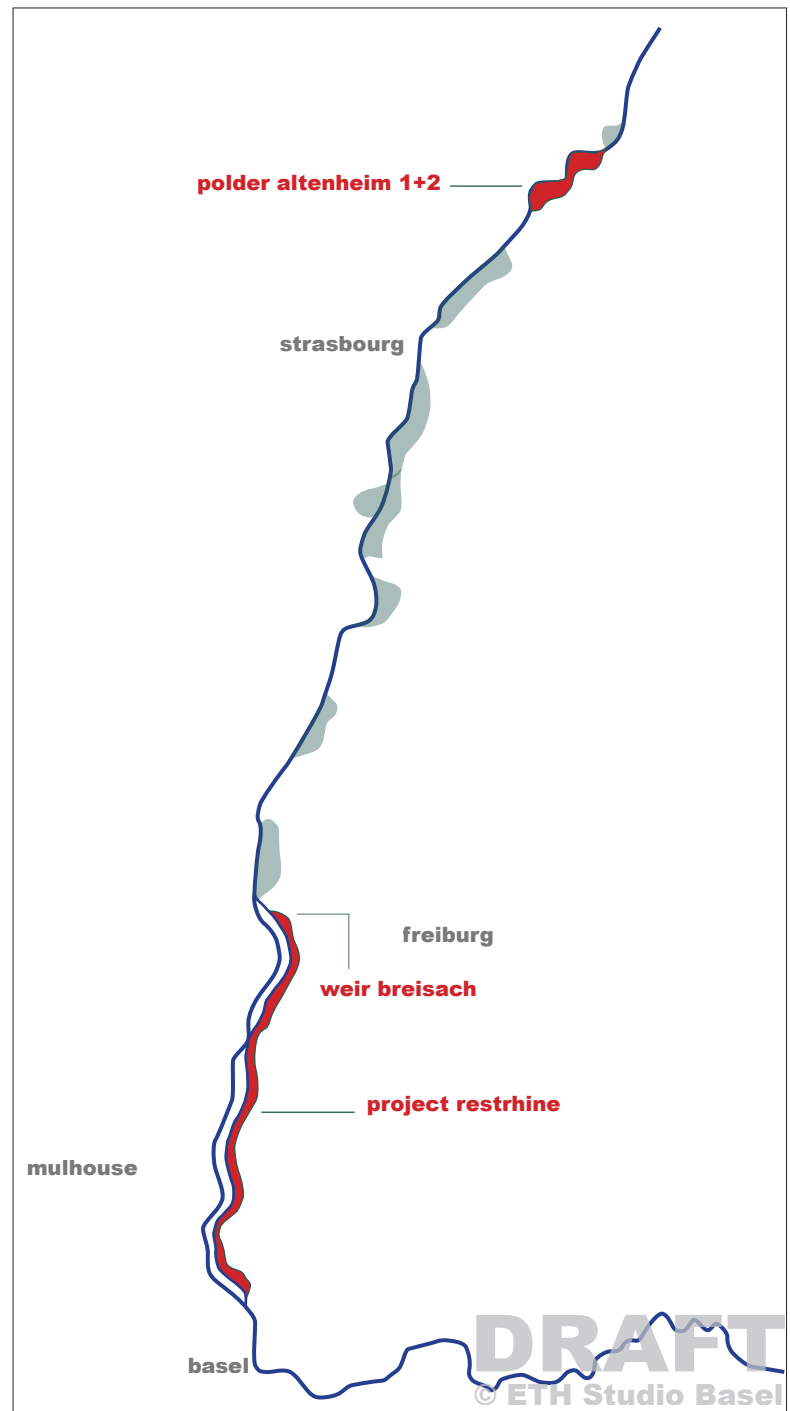
area: 5.1 km²
 volume : 6.2 mio m³
 costs: 42 mio euro
 use: forest + agriculture

3 lowering the ground:

Enlarging the riverbed by removing gravel

project restrhine

area: 10.2 km²
 volume : 25 mio m³
 costs: 600 mio euro
 use: forest + nature reserve

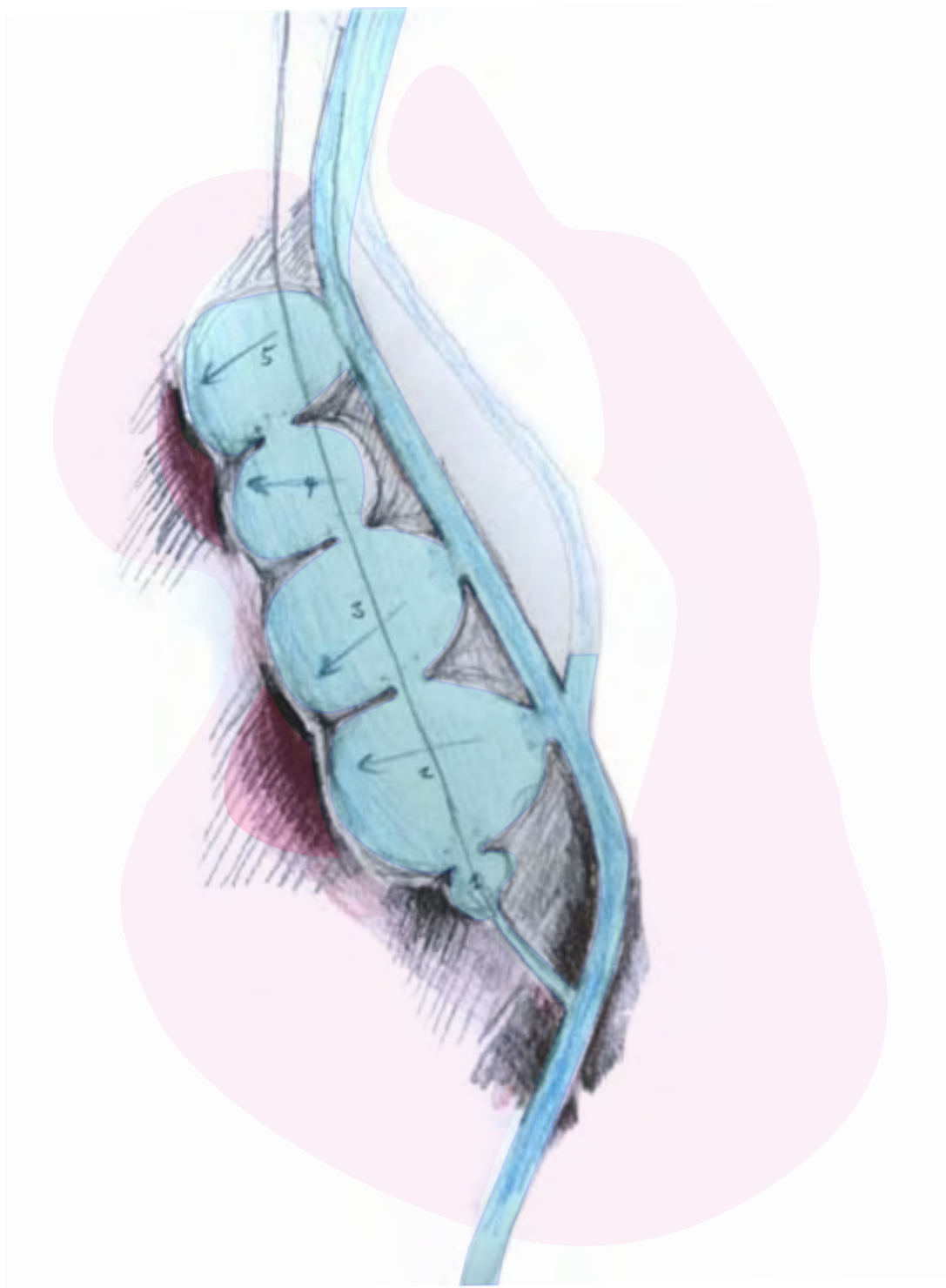


RETENTION BASINS





- 1 NATURE RESERVE
- 2 PARK
- 3 STORAGE LAKE
- 4 AGRICULTURE
- 5 ALLOTMENT GARDEN
- 6 GOLF
- 7 SPORT GROUND
- 8 SOLAR CELLS





1 Rhine and villages

The meadow as perfect void for retention use

2 Retention basins

The flooding brings the rhine to the villages

ATTRACTIVE MEADOWS

A LANDSCAPE RICH OF NATURE AND LEISURE FACILITIES

Meadow Landscape

Meadows vs. Canalisation

Existing Use

Green

Water

Agriculture

Leisure

Conclusion Sketch

MEADOW LANDSCAPE

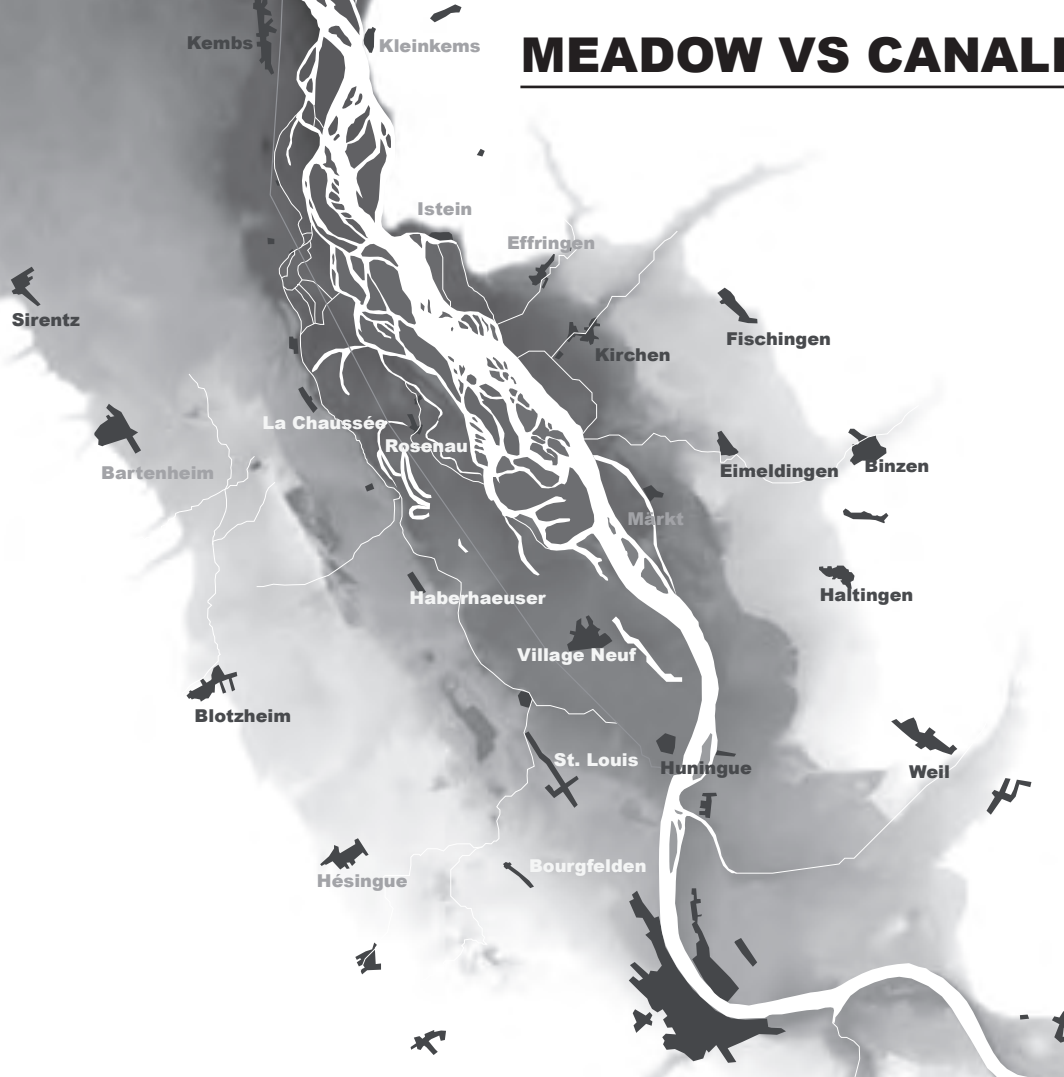


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1845

MEADOW VS CANALISATION



2007



old villages
late mediaeval villages
newer villages

Topography:
from black (200m) to white (300m)

Meadow and Canal

The meandering Rhine
The straightened and canalised Rhine

The meandering Rhine was in permanent process of transformation, in which it constantly searched for new stream courses, between many wandering islands of gravel. It created a natural space, that was only usable with a big effort.

In the course of growth straightening and canalisation led to a total change. The Rhine is under control, at least in normal times, and passable for ships and usable for generating electrical power. But its natural form and the original attraction was destroyed.

In which case would it be possible to combine the advantages of both, the meadow river and the canal?

Forest

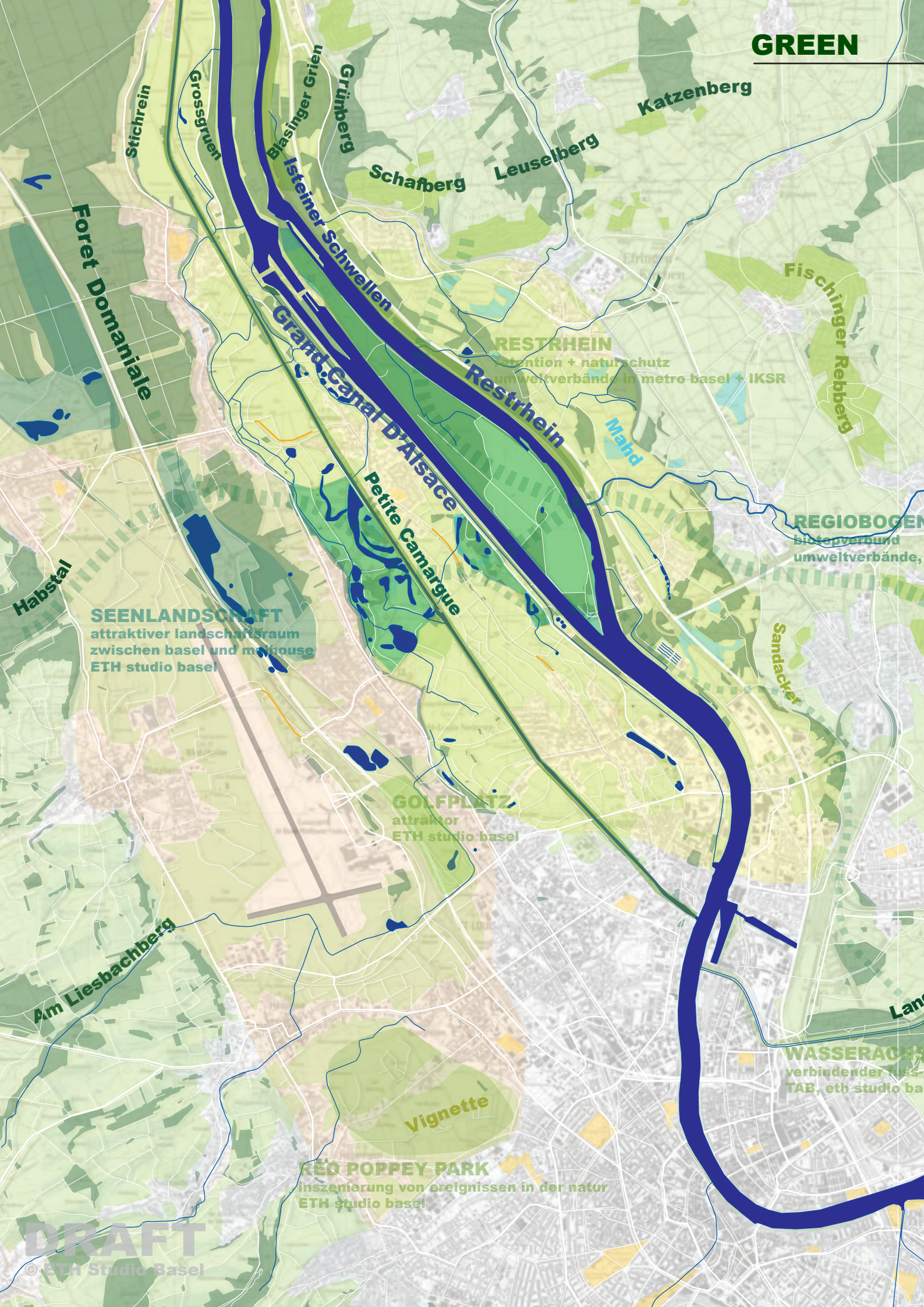
Nature Reserve

Agriculture

Sportground

Settlement

Industry



Stichrein
Grossgruen
Blasinger Grien
Grünberg
Schafberg
Leuselberg
Katzenberg
Fischinger Rebberg

Habstal

SEENLANDSCHAFT
attraktiver landschaftsraum
zwischen basel und mahlhouse
ETH studio basel

RESTRHEIN
retention + naturschutz
umweltverbände in metro basel + IKSR

REGIOBOGEN
biotopverbund
umweltverbände,

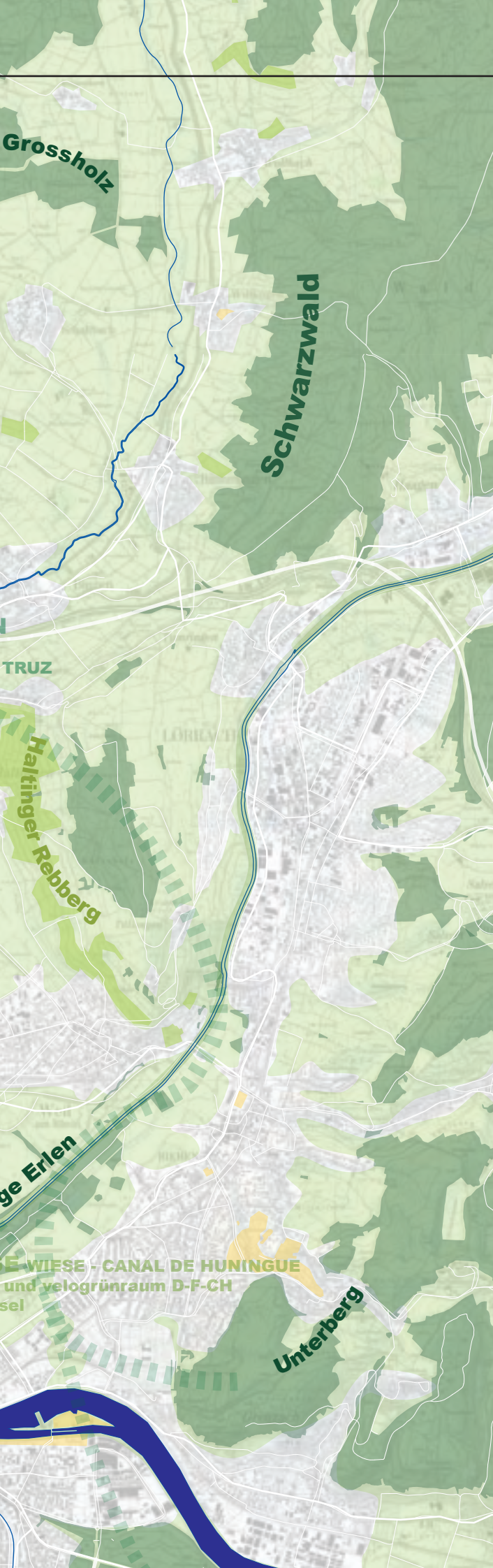
GOLFPLATZ
attraktor
ETH studio basel

Am Liesbachberg

Vignette

RED POPPEY PARK
inszenierung von ereignissen in der natur
ETH studio basel

WASSERACHSE
verbindender fuß-
TAB, eth studio ba



Green

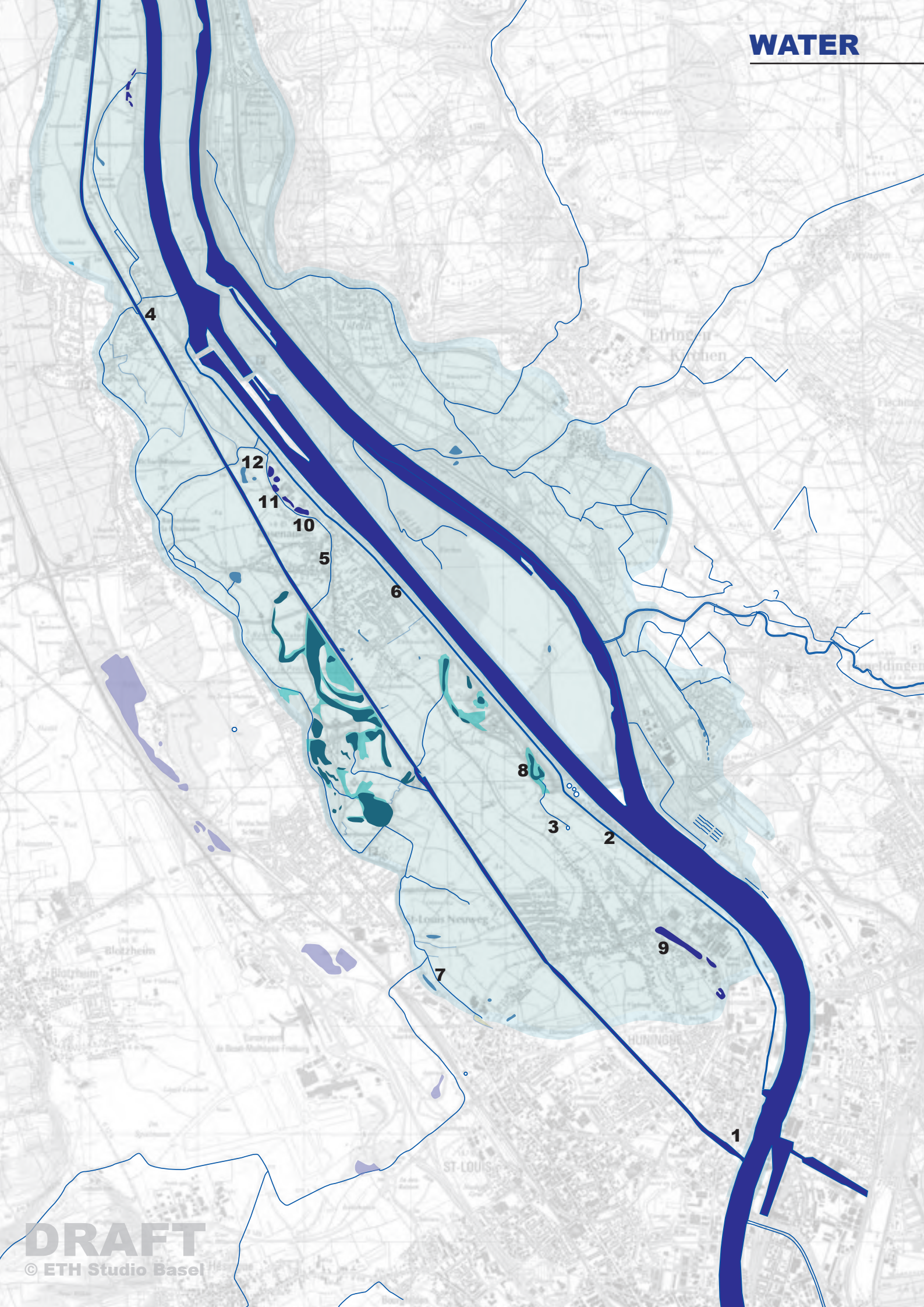
A natural passage between the *Alsace* and the *Schwarzwald* is located at the *Isteiner Schwellen* where the hills from both sides reach the Rhine.

The *Petite Camargue Alsacienne* is one of several nature reserves along the Upper Rhine, it is the re transformation of a topographic basin into a natural state. A few old arms of the river became lakes. Wherever possible ecological flooding is made. It's almost a prototype of a retention basin with a frequent flooding. Many observation towers and an exclusive fish breed offer more than a common reserve or recreational area.

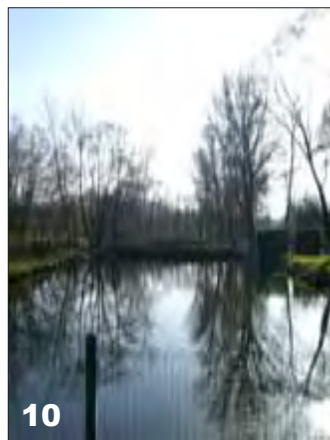
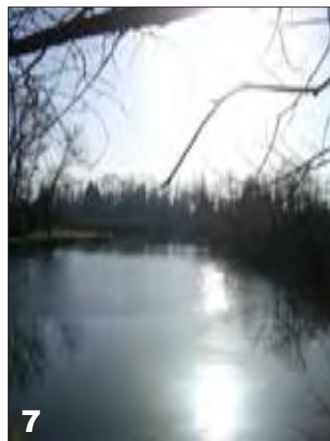
The *Grünraumvernetzung* tries to connect the partly separated greens.

The sinking ground water table triggered by the straightening of the rhine could be stabilised. Although in extremely shrinking populations, most of the species are still existing in the old Rhine and the reserves. Even the Rhine seems to be on the mend after the chemical catastrophes, and near *Kembs* the salmon was already seen.

forest
grape wine
agriculture
ground water reserve
parks and alleys
projects



THE MEADOW IS FILLED WITH CANALS, STREAMS AND LAKES



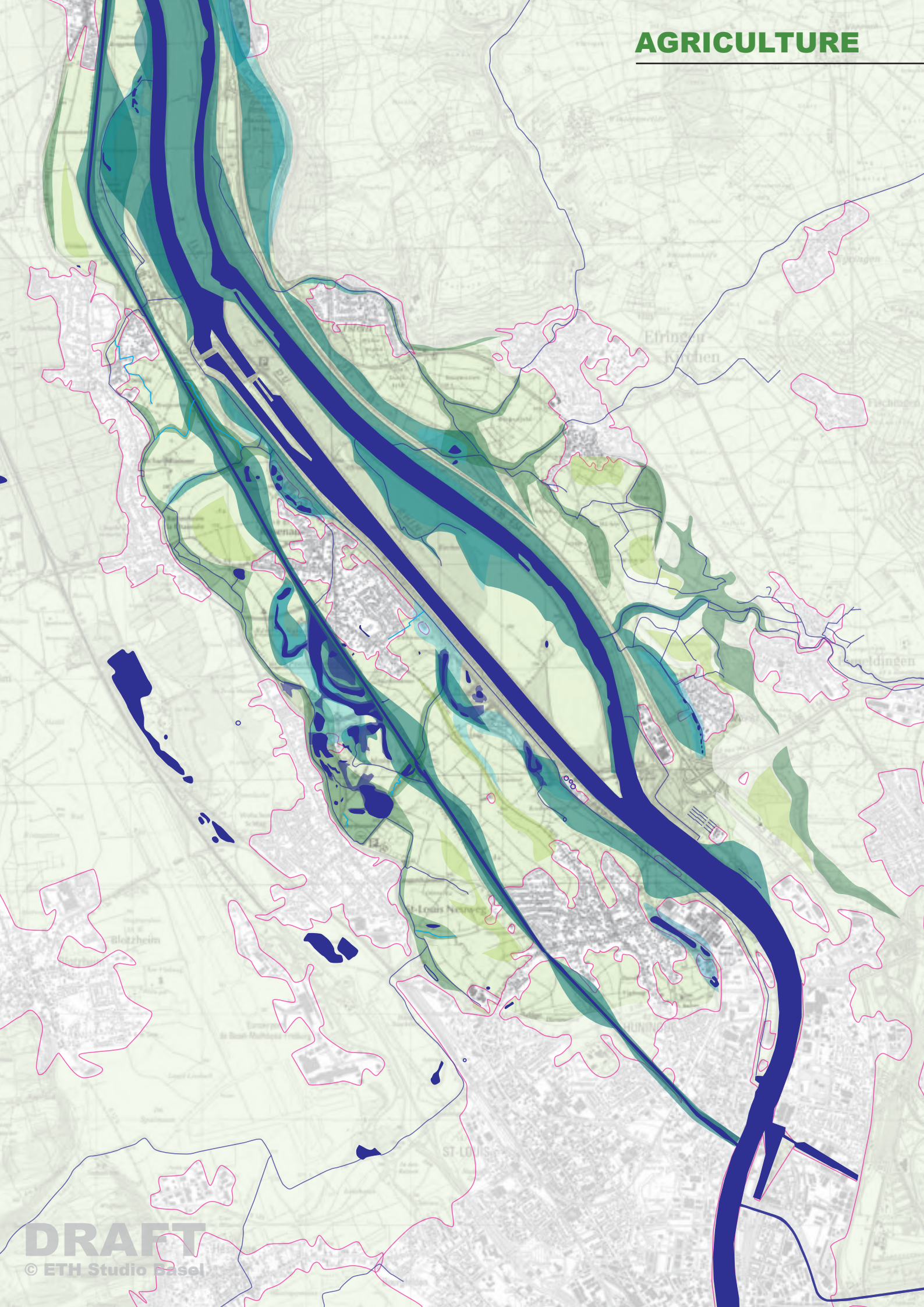
1- 6
Canals

7-12
Fishing lakes in old rhine arms

rivers and canals
nature lakes
fishing lakes
quary pond
other lakes

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ETH Studio Basel

AGRICULTURE



1 Urban Nature Meadow

label: iris WaterPark

commercial use:

Schnittblumen

essences

comment:

blossoms stay for summer



2 Life Science Meadow

label: KlosterfrauKöln loan

commercial use:

Jarsin, a common antidepressant in psychiatry, one of the best on *Johanniskraut* basis, produced by *Klosterfrau Köln*.

comment:

supports boundaries on the Upper Rhine valley.



3 Traditional Meadow

label: basler RhyChriesi

commercial use:

fruit and wood from basel for basel

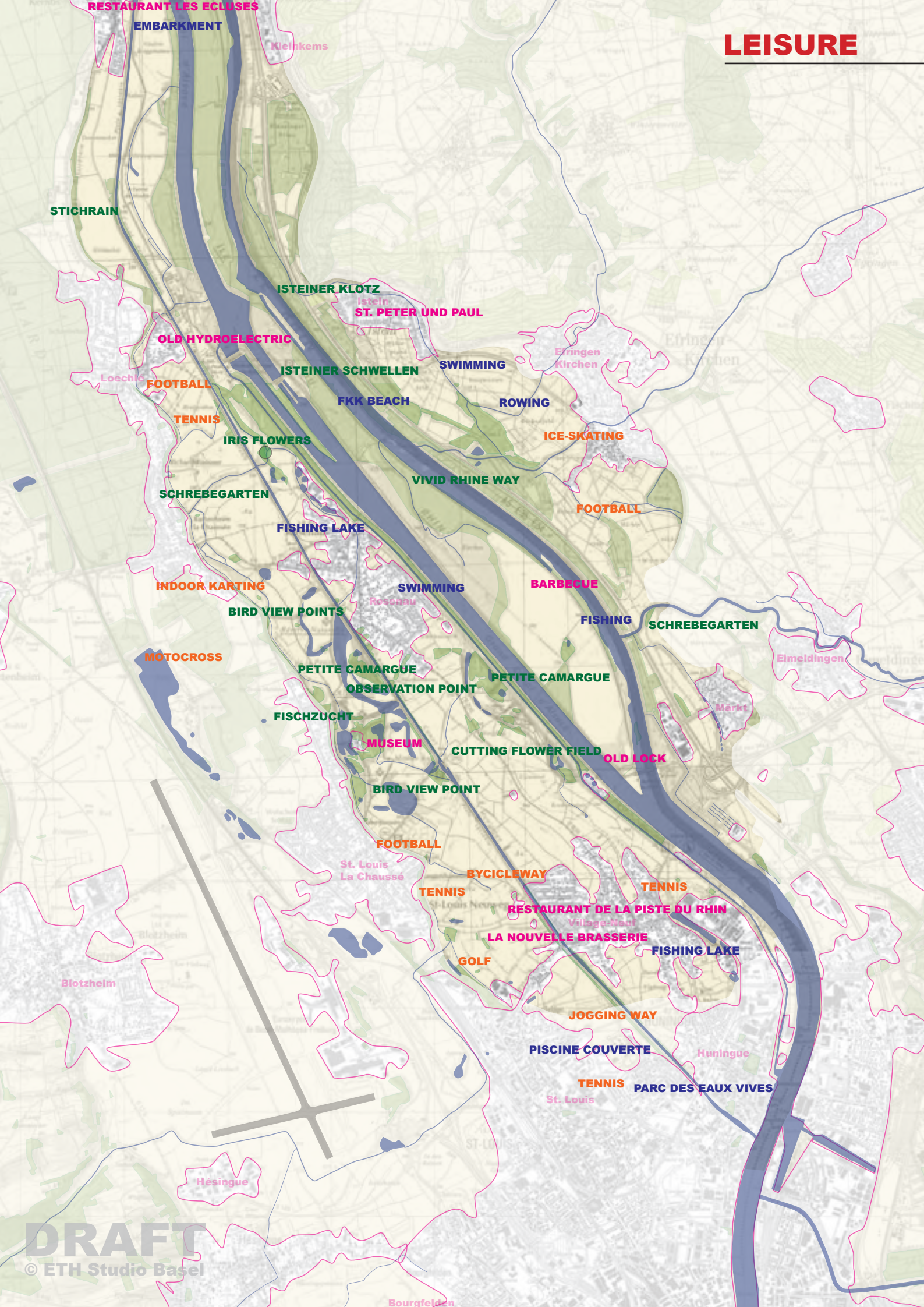
comment:

traditional agriculture forms, typical for the meadow like sheep pastures and traditional fruit trees are not only suitable for the meadow, they are also of high importance for the fauna and the waters.



frequently flooded
 wet ground along meadow edge
 dry sites
 old arms of the rhine, still perceptible

LEISURE



EMBARKMENT

Kleinkems

STICHRAIN

ISTEINER KLOTZ

ISTEIN
ST. PETER UND PAUL

OLD HYDROELECTRIC

LOECHLE
FOOTBALL

TENNIS

IRIS FLOWERS

SCHREBEGARTEN

FISHING LAKE

INDOOR KARTING

BIRD VIEW POINTS

MOTOCROSS

PETITE CAMARGUE

OBSERVATION POINT

FISCHZUCHT

MUSEUM

BIRD VIEW POINT

FOOTBALL

St. Louis
La Chaussé

BYCICLEWAY

TENNIS

RESTAURANT DE LA PISTE DU RHIN

Village-Mont
LA NOUVELLE BRASSERIE

GOLF

FISHING LAKE

JOGGING WAY

PISCINE COUVERTE

Huningue

TENNIS

PARC DES EAUX VIVES

St. Louis

Hésingue

DRAFT

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Bourgfelden



1 Rhine-Side-Canal

2 Canal de Huningue

3 Parc des Eaux Vives

4 Sportground Bartenheim

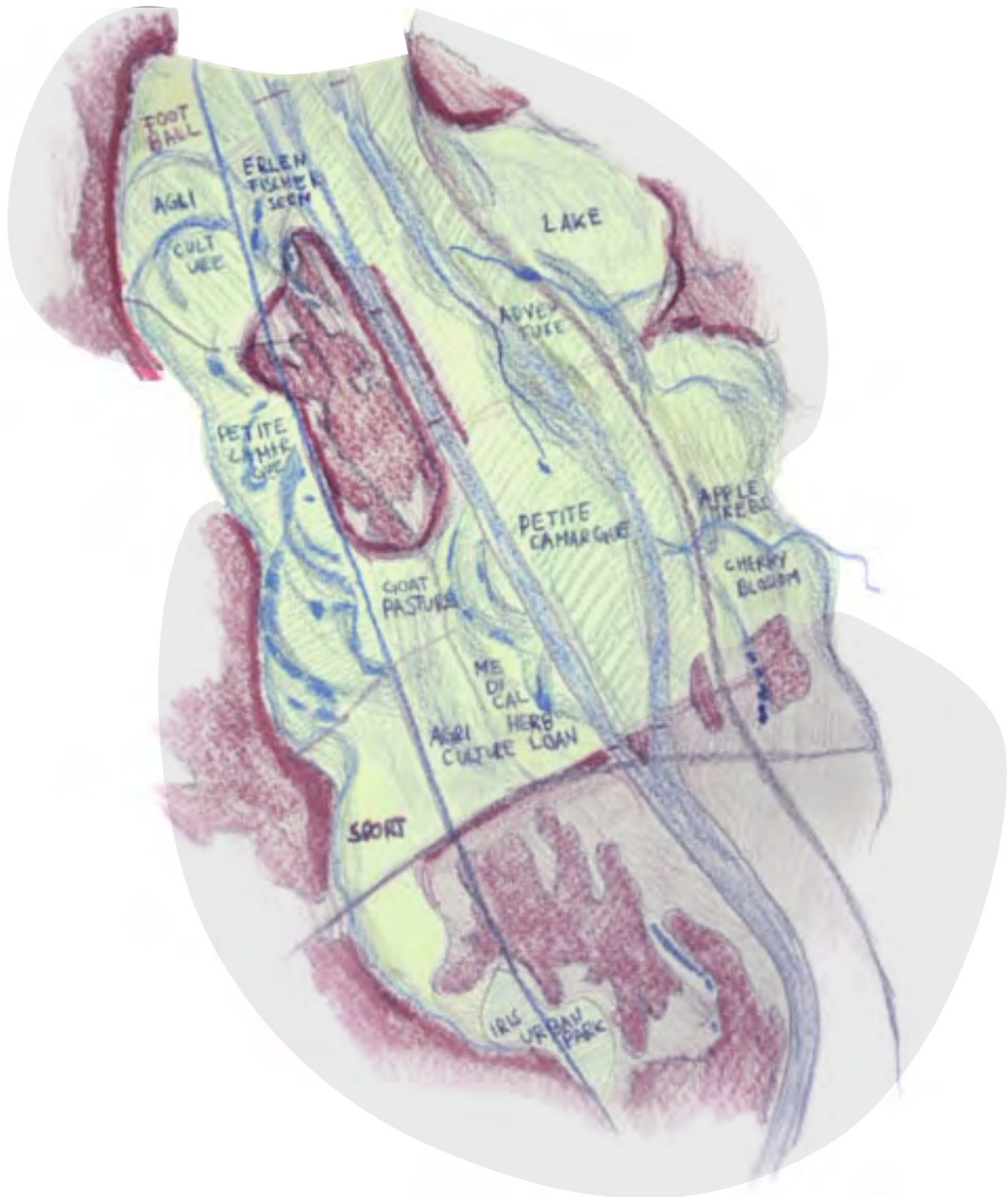
5 Isteiner Schwellen

6 Fishing Lake Rosenau

7 Stauwehr Märkt

8 Observation tower Petite Camargue







1

1 Meadow

Uses according to meadow potential

2 Built fabric

City is attracted by the meadow landscape



RISING TOPOGRAPHY

PROTECTING INFRASTRUCTURE AND CONTRASTING INTERFACES

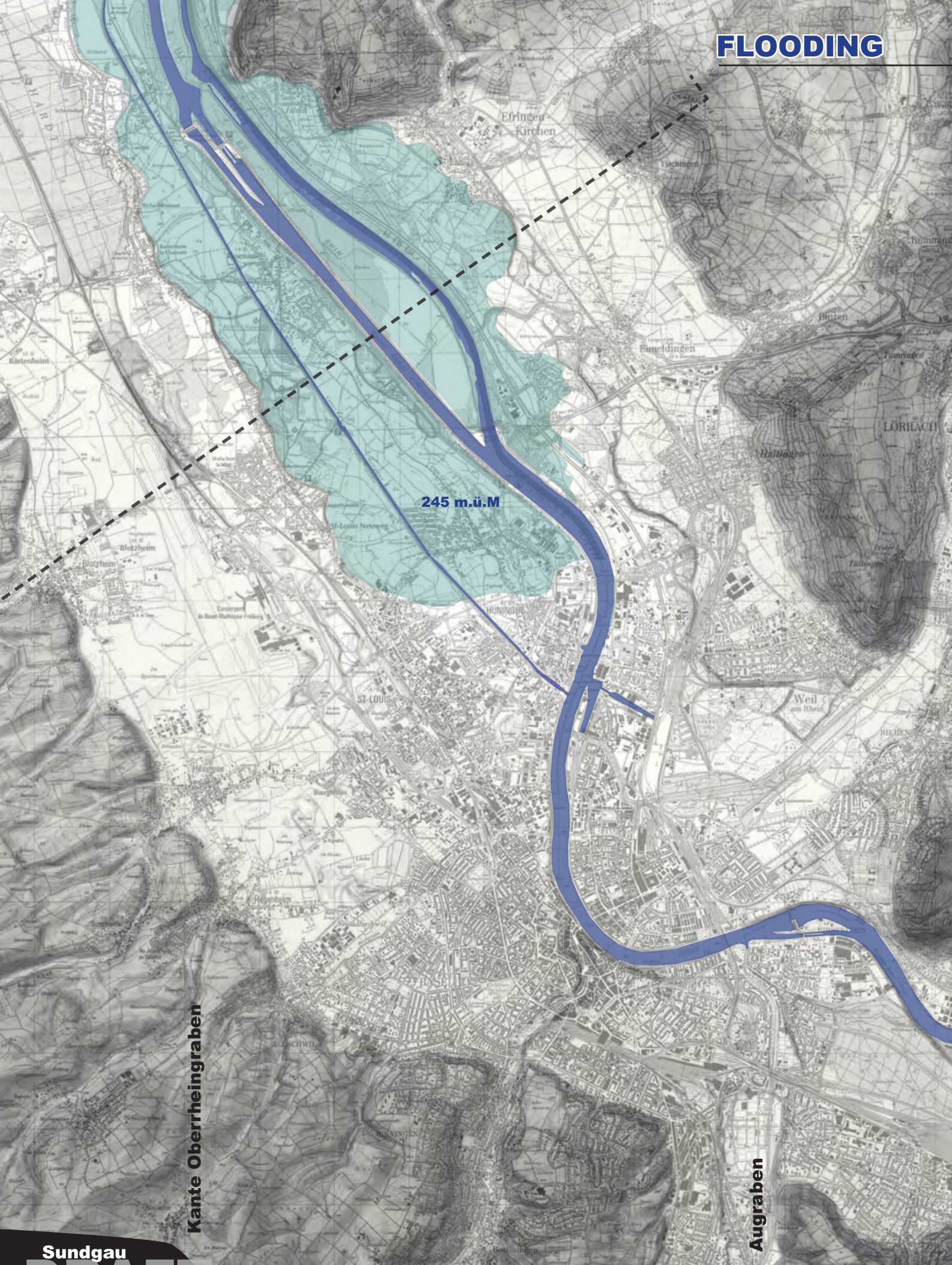
Topography

Dams

Urban Development

Conclusion Sketch

FLOODING



245 m.ü.M

Kante Oberrheingraben

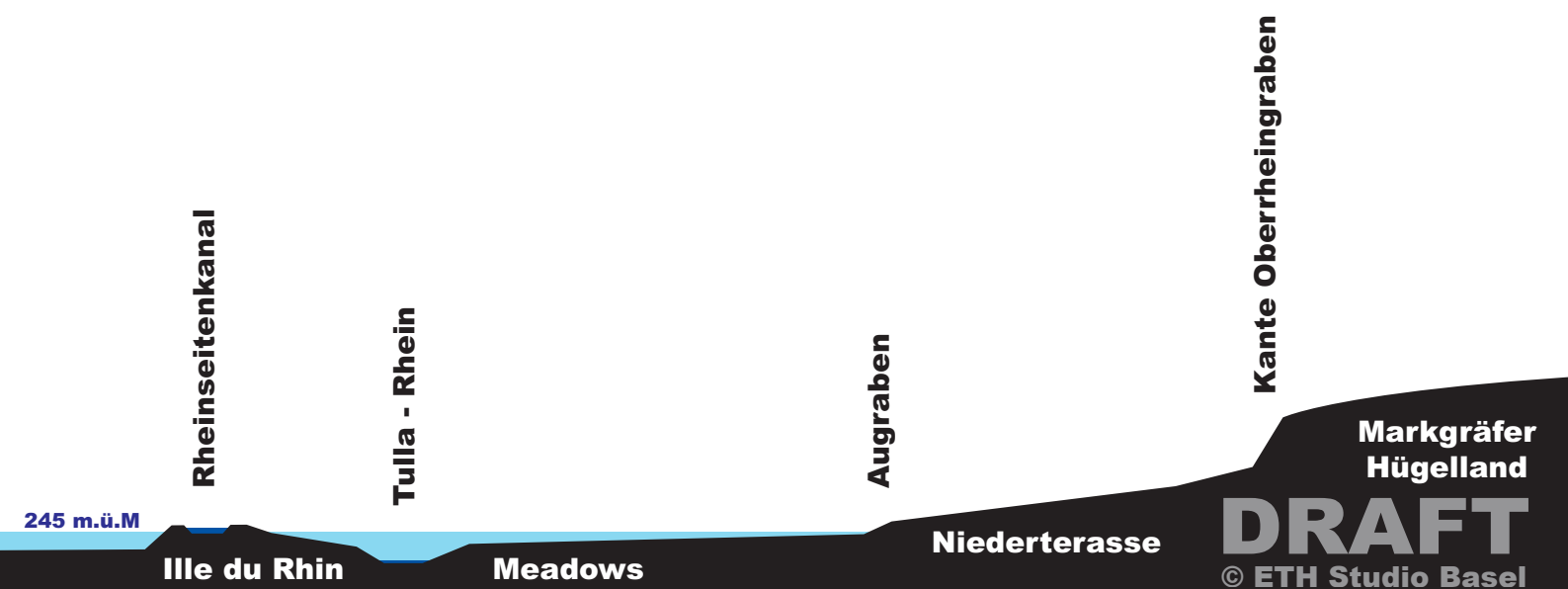
Augraben

Sundgau
DRAFT

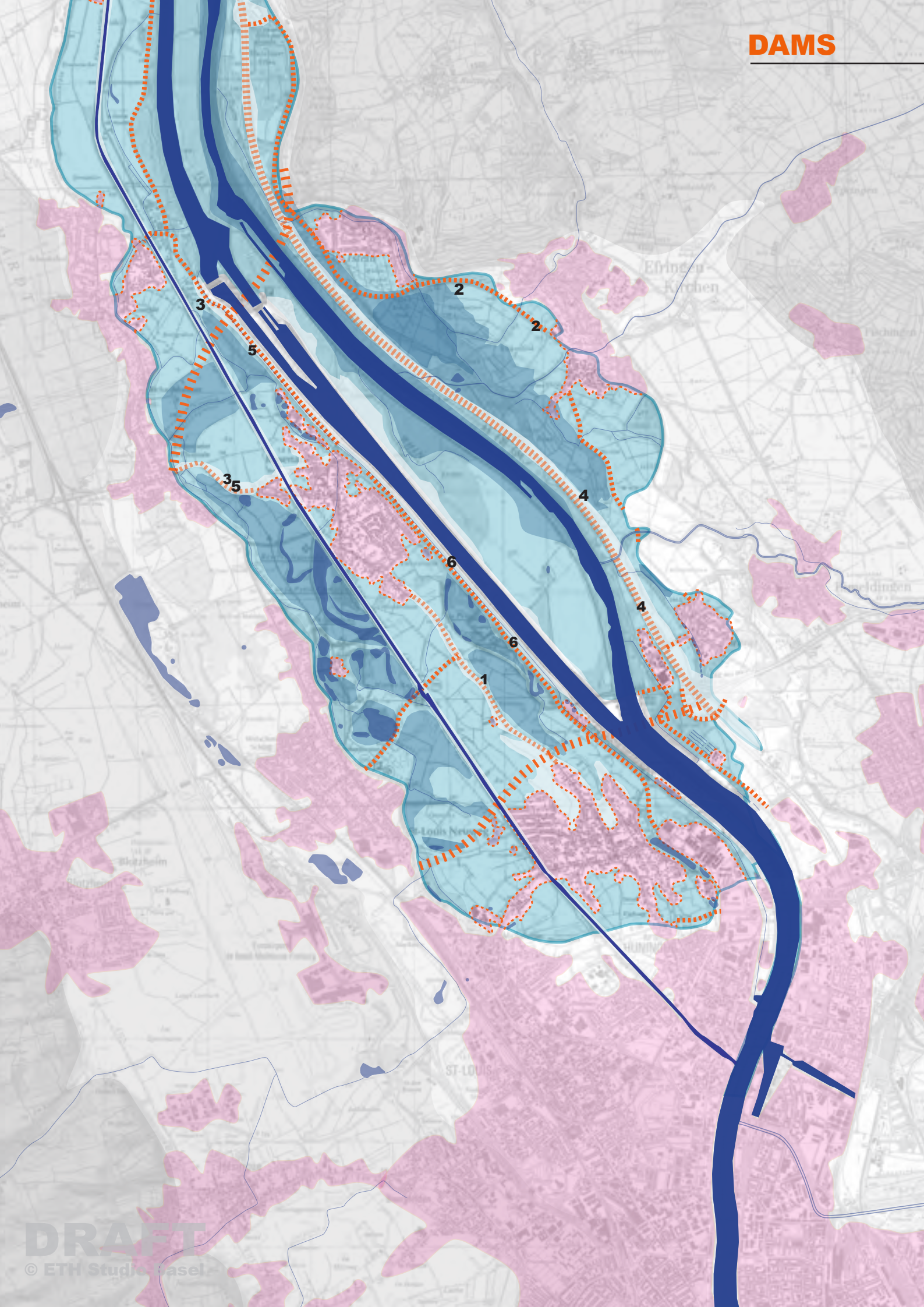
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Niederterasse

Meadows



DAMS



DRAFT

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MANY STREETS ARE ALREADY BUILT ON, OR BEHIND, OLD DAMS



URBAN DEVELOPMENT

KEMBS

UNITED

Kembs

Kleinkembs

MEADOWVIEW

WATERFRONT

**LOECHLE
AU RHIN**

Loechlé

MEADOWVIEW

Istein

**EFRINGER
KNIE**

Efringen
Kirchen

**INSEL
ROSENAU**

Rosenu

WATERFRONT

**PORT
CITY**

Eimeldingen

Märkt

Haltingen

**AIRPORT
CITY**

St. Louis
La Chausse

Village-Neuf

**BASEL
NORD**

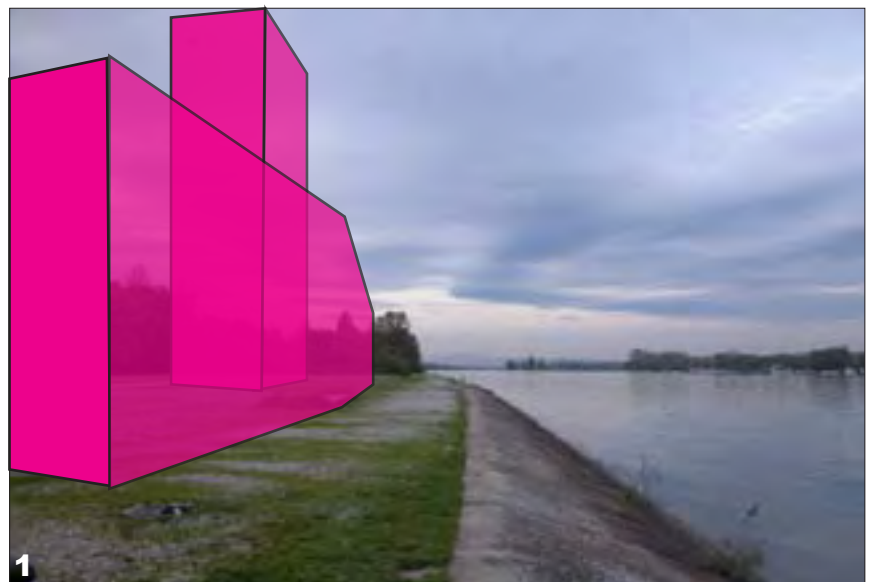
Huningue

St. Louis

Weil am Rhein

**BASEL
CITY**

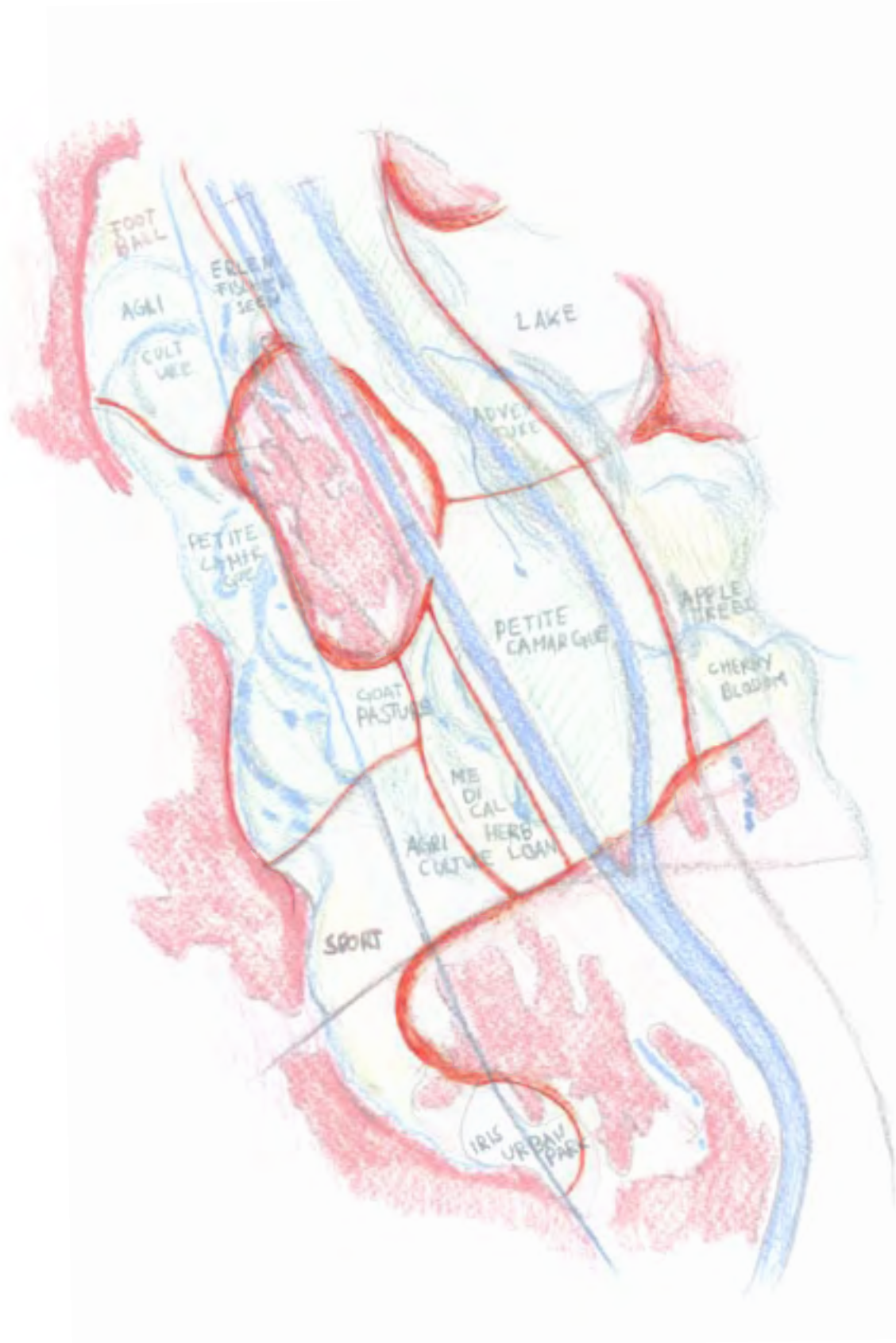
HOUSING ON THE RHINE

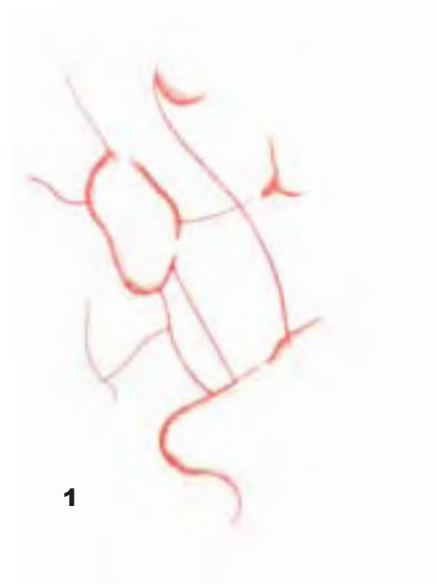


1 Urban Rhine-Side-Canal

2 Attractive Meadow View

RISING TOPOGRAPHY





1 Dams

Protecting infrastructure

2 Meadow and City

Attractive contrast



VISION 2077

URBAN MEADOWS AS AN UPPER RHINE STRATEGY

Combining Interests and Potentials

Steps and Scenarios

Retention 2077

Urban Meadows 2077

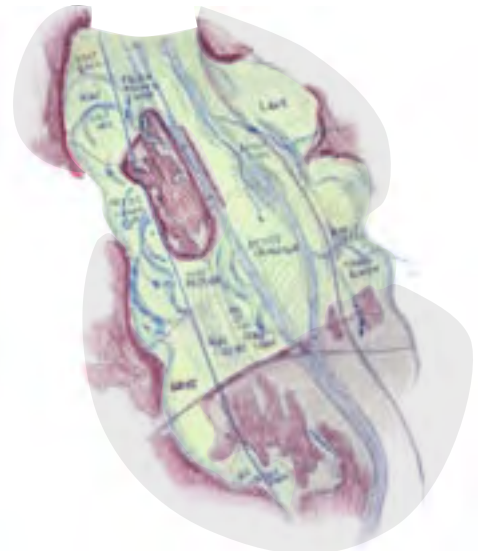
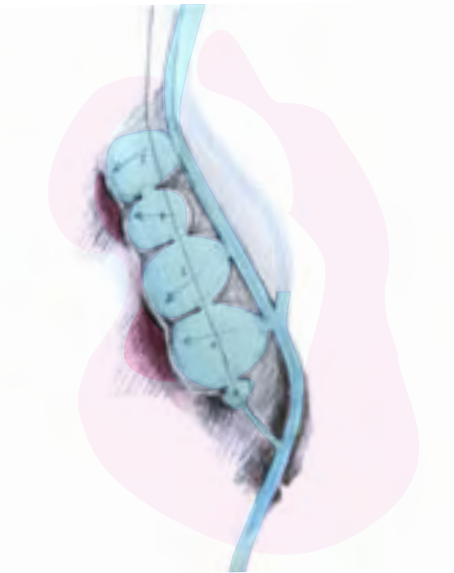
Sections

Zoom In

Typologies

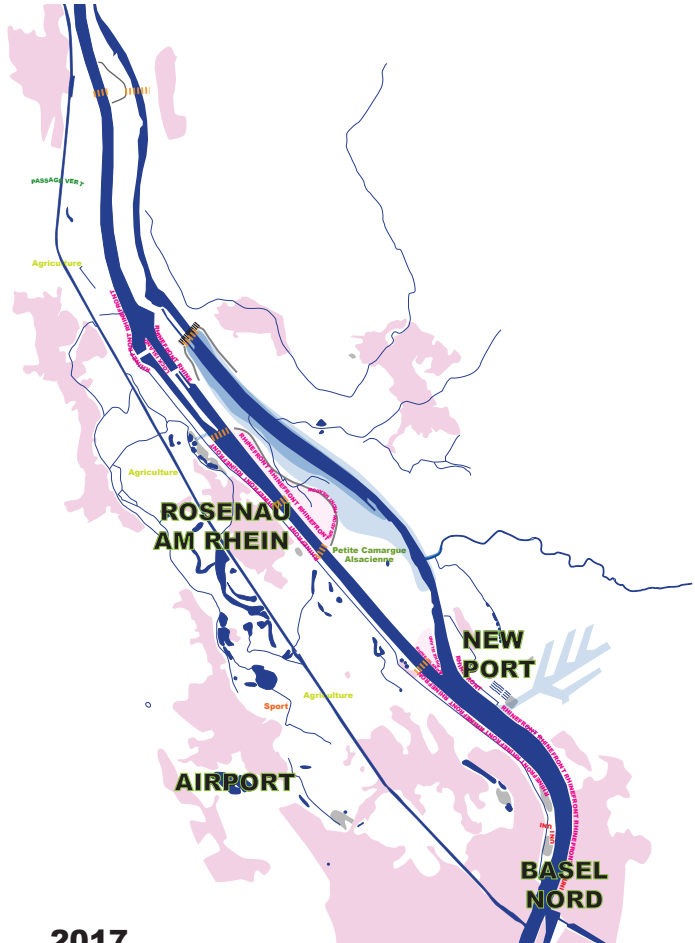
Impressions

Zoom Out

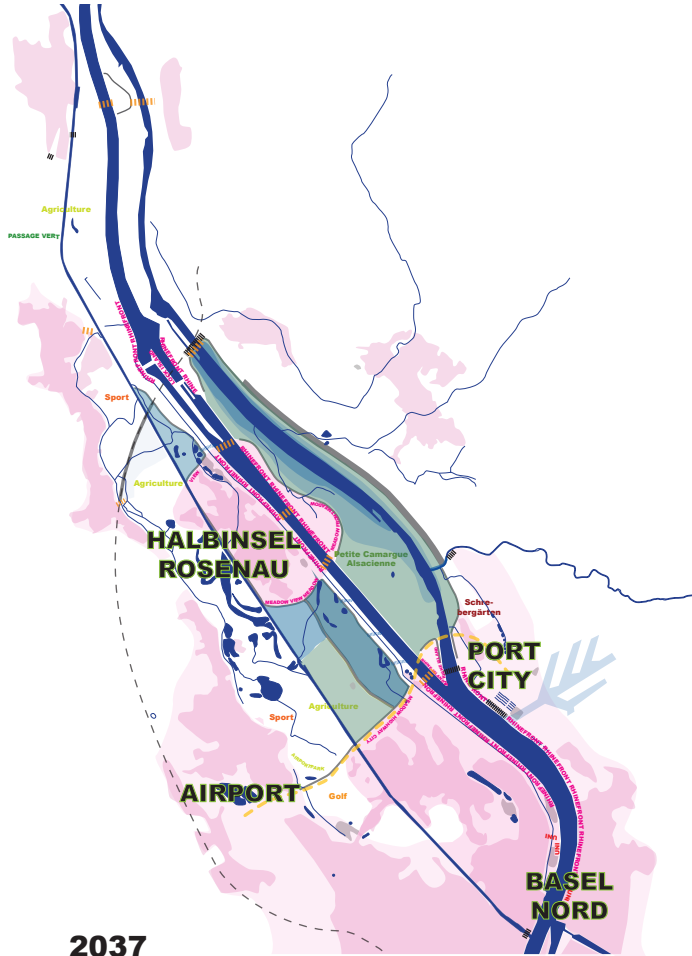


- 1** Rhine as Identity
- 2** Retention
- 3** Attractive Meadows
- 4** Rising Topography

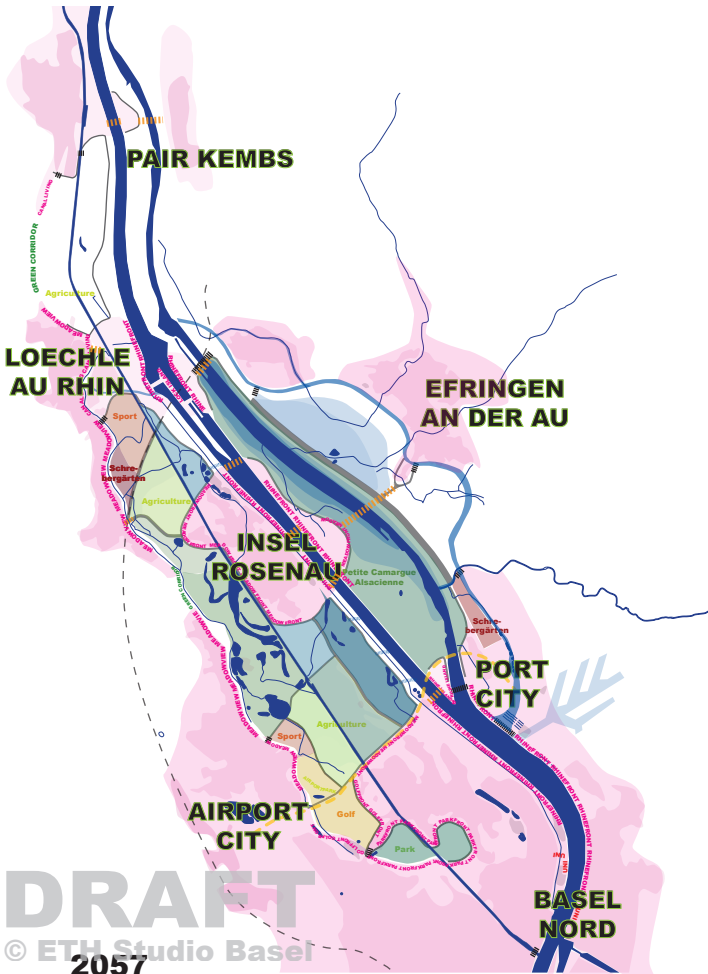
STRATEGIES



2017

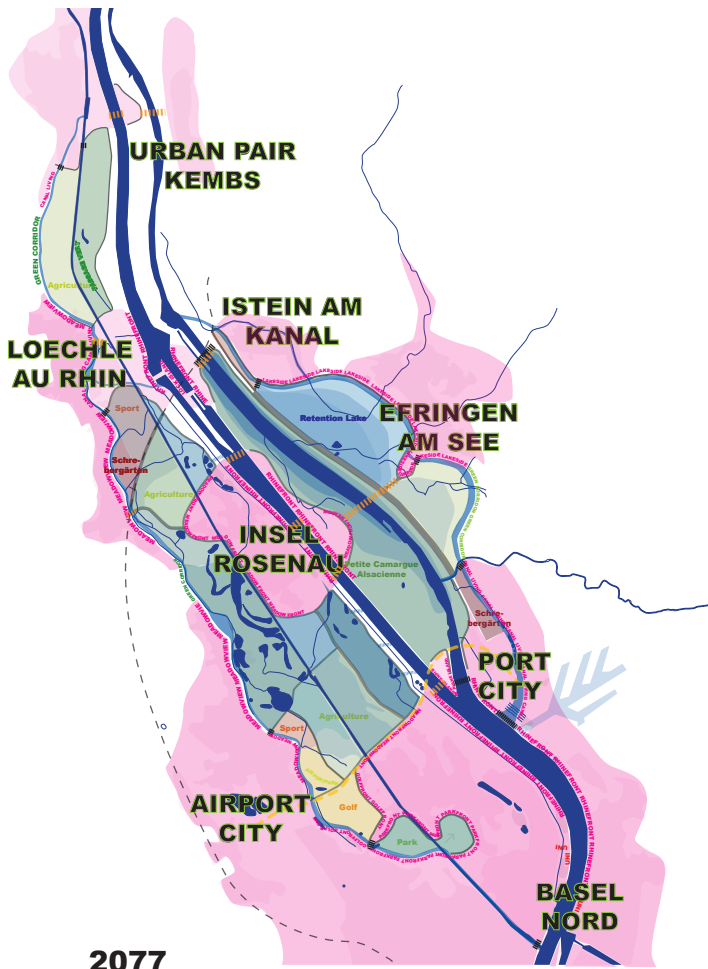


2037



2057

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2077

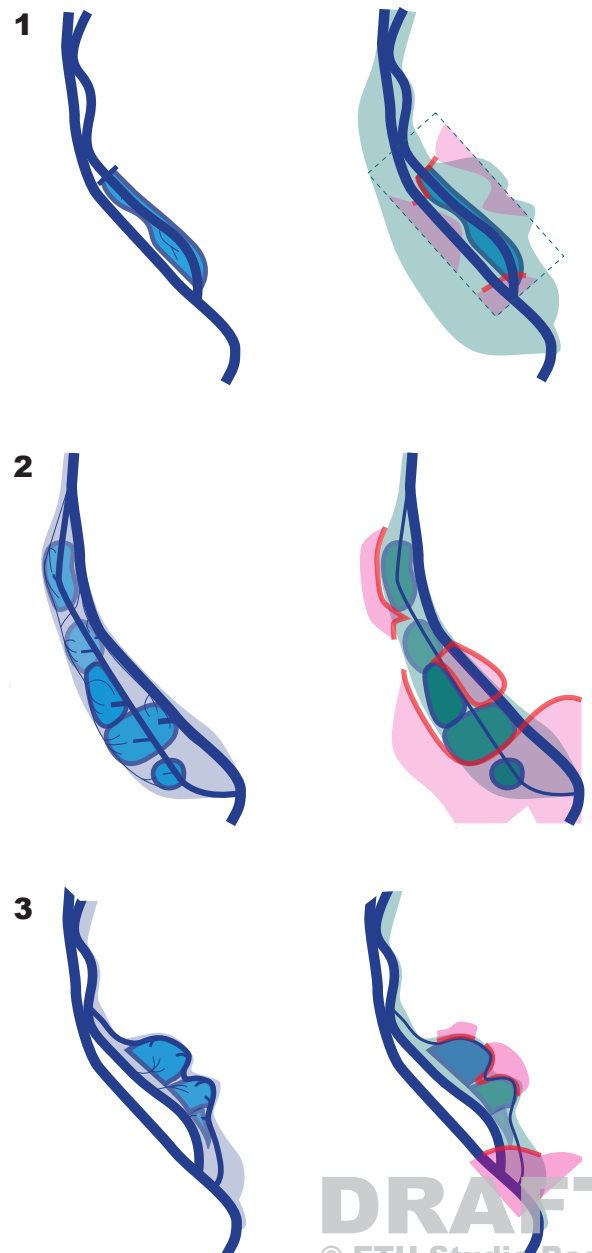
STEPS AND SCENARIOS

Vision 2077 is a total realisation of the possible retention and urban potential. But, it should not be seen as defined master plan, in fact it is a visualisation of steps and tool that could be combined, changed or modified.

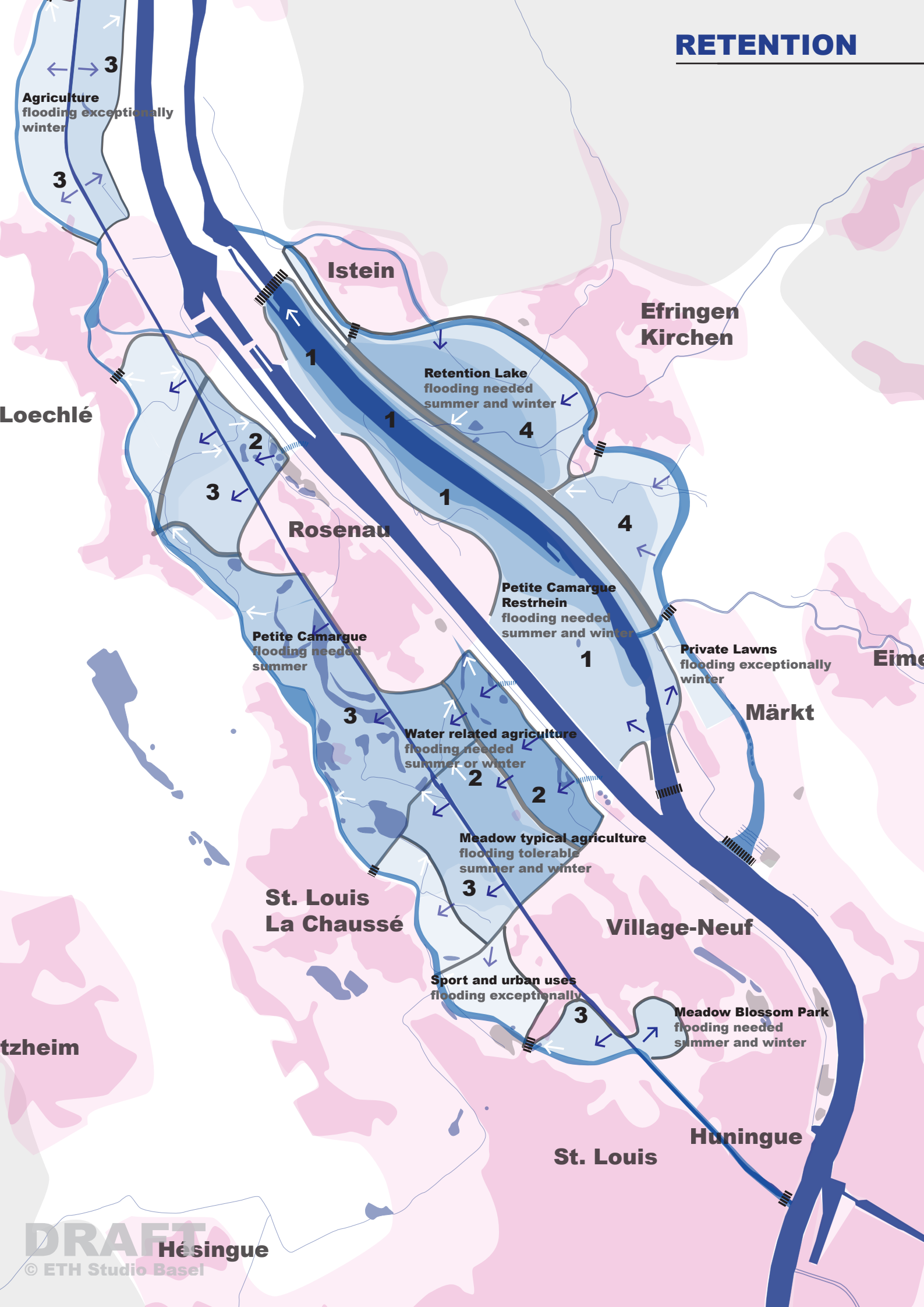
1
Tulla-Rhine weir and urban
Rhine-Side-Canal

2
Tuned Canal de Huingue and urbanized
french meadow edge

3
German Auenkanal and urbanized german
meadow edge



RETENTION



Agriculture
flooding exceptionally
winter

Istein

Efringen
Kirchen

Loechlé

Retention Lake
flooding needed
summer and winter

Rosenau

Petite Camargue
Restrhein
flooding needed
summer and winter

Petite Camargue
flooding needed
summer

Private Lawns
flooding exceptionally
winter

Eime

Märkt

Water related agriculture
flooding needed
summer or winter

Meadow typical agriculture
flooding tolerable
summer and winter

St. Louis
La Chaussé

Village-Neuf

tzheim

Sport and urban uses
flooding exceptionally

Meadow Blossom Park
flooding needed
summer and winter

Huningue

St. Louis

RETENTION VOLUME:

about 40 mio m³

FLOODING SYSTEM:

- 1° Near *Istein* a lock ponds the water of the old Tulla Rhine in its valley.
- 2° The basins between the Rhine Side Canal and the *Canal de Huningue* is directly flooded from the rhine canal trough several pass canals. They are emptied trough the small canal besides the Rhine Side Canal or trough the *Canal de Huningue*.
- 3° The basins along the french *Augraben* are flooded from the *Canal de Huningue* and emptied trough the *Augraben* canal.
- 4° A canal following the german *Augraben* at about 244 meter above sea level enables the flooding of the basins (and the retention lake) on the right side of the highway. They are emptied directly into the old rhine.

EVACUATION:

A dense alert system with a specific siren and light signals is installed all over the retention meadows to enable a evacuation of the basins in 10 hours.

SAFETY POINTS:

There are different kinds of safety islands above flood level in each basin for men as well as for animals.

COMPENSATIONS FOR DAMAGES:

In case of needed retention flooding the users of commercial used basins have rights for compensation. For example the tenants of an allotment garden get a fix amount of 2000 euros combined with a very cheap rental fee. Farmers of course have other deals.

URBAN PAIR KEMBS

Kleinkems

LOECHLE AU RHIN

Istein

Sierentz

Loeclé

Sport

Schre-
bergärten

Agriculture

Rosenau

INSEL ROSENAU

Bartenheim

Petite Camargue
Alsacienne

Agriculture

Sport

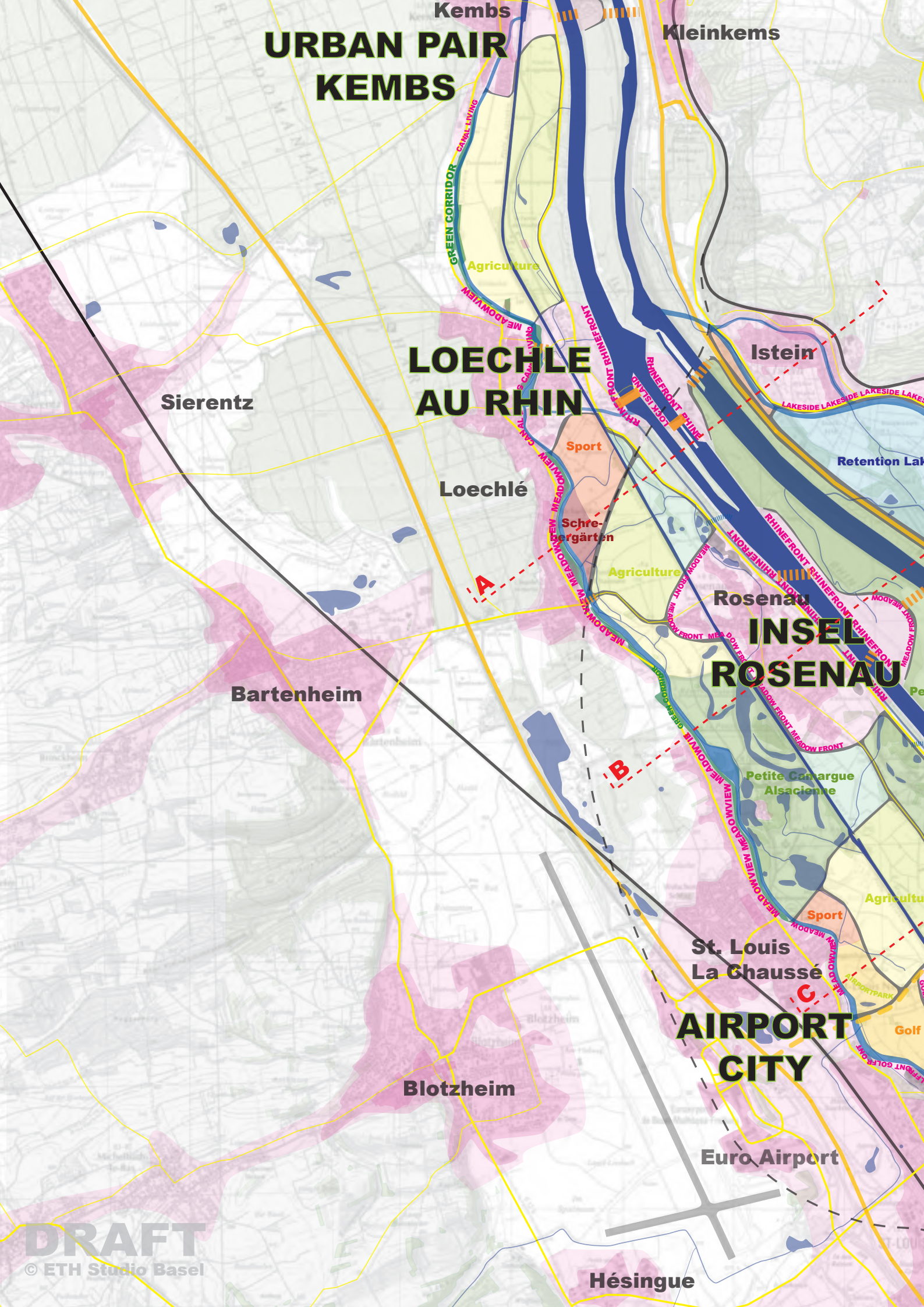
St. Louis
La Chaussée

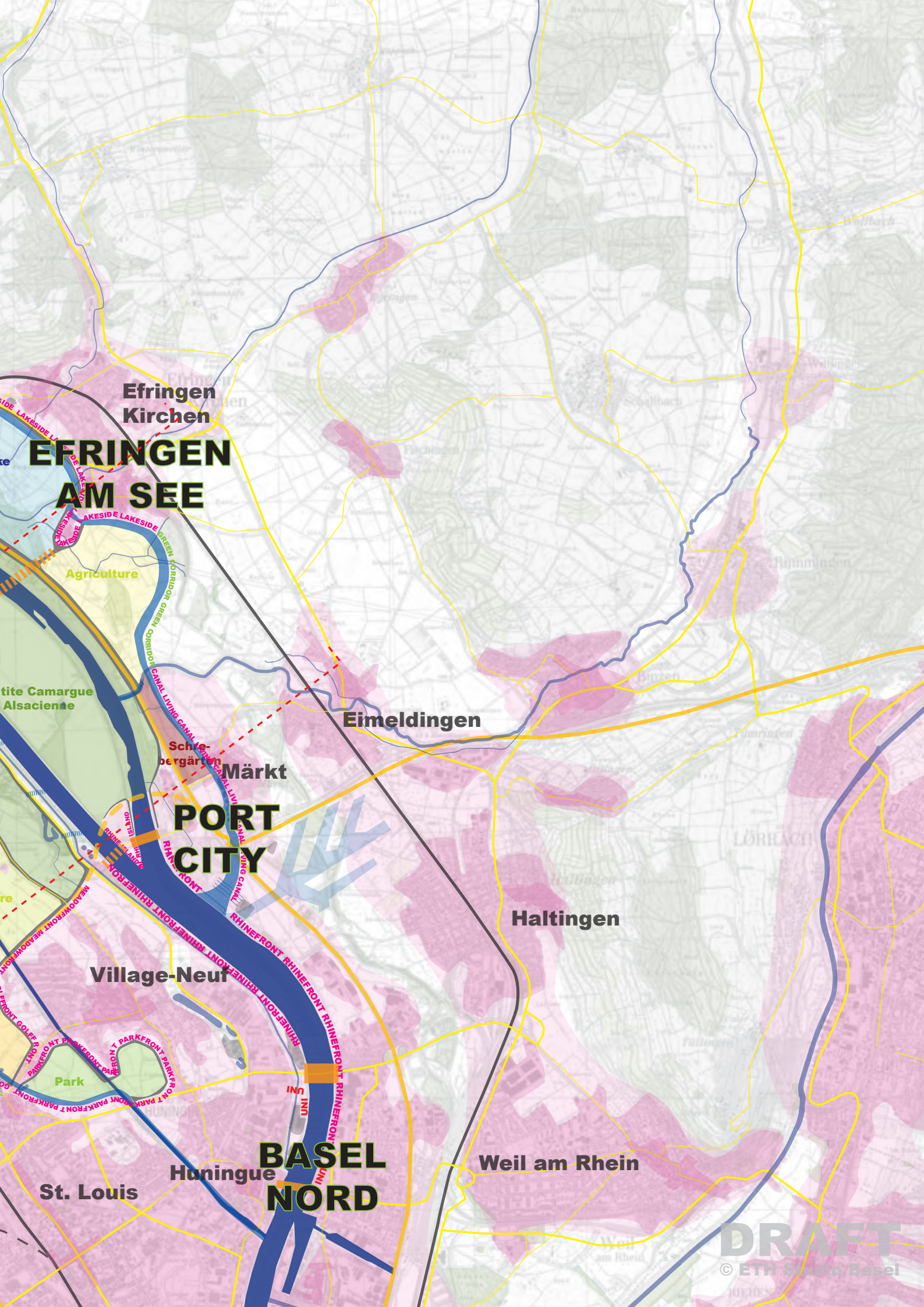
AIRPORT CITY

Blotzheim

Euro Airport

Hésingue





**EFRINGEN
AM SEE**

Efringen
Kirchen

Agriculture

Camargue
Alsacienne

Sche-
bergärten

Märkt

**PORT
CITY**

Eimeldingen

Haltingen

Village-Neuf

Park

**BASEL
NORD**

Huningue

Weil am Rhein

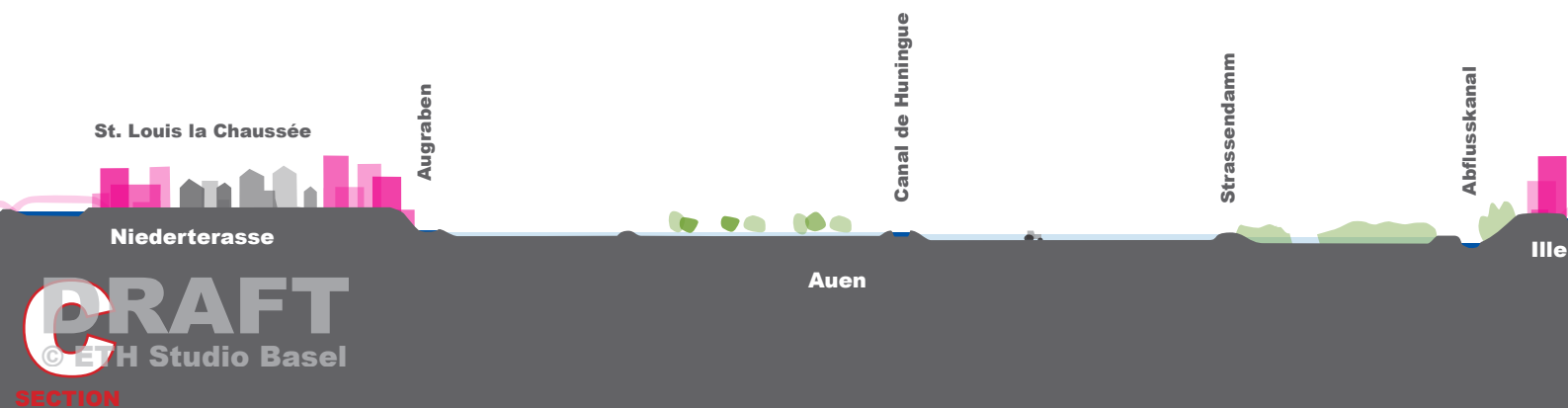
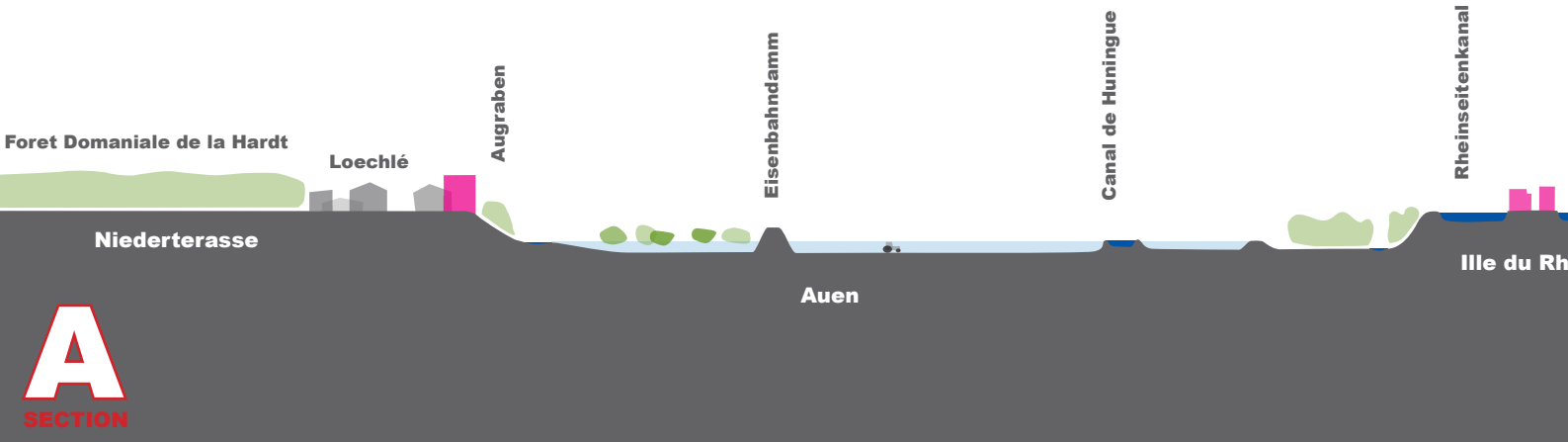
St. Louis

DRAFT

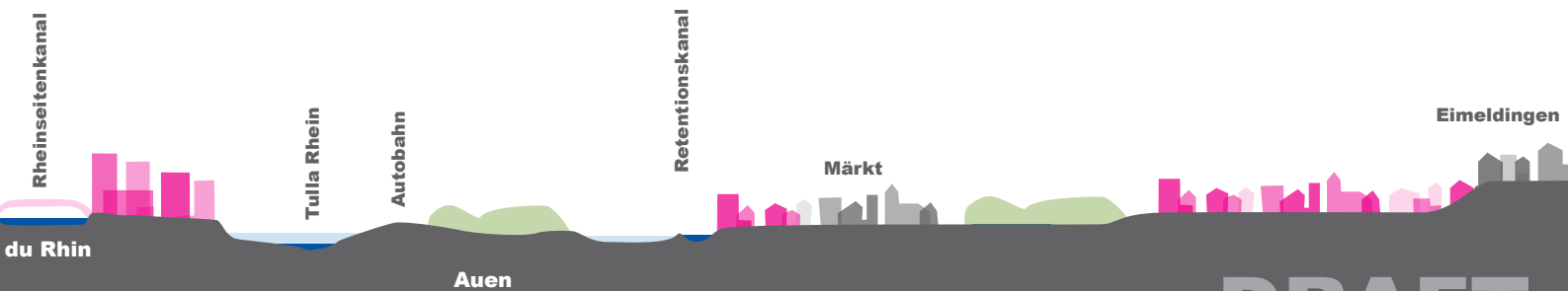
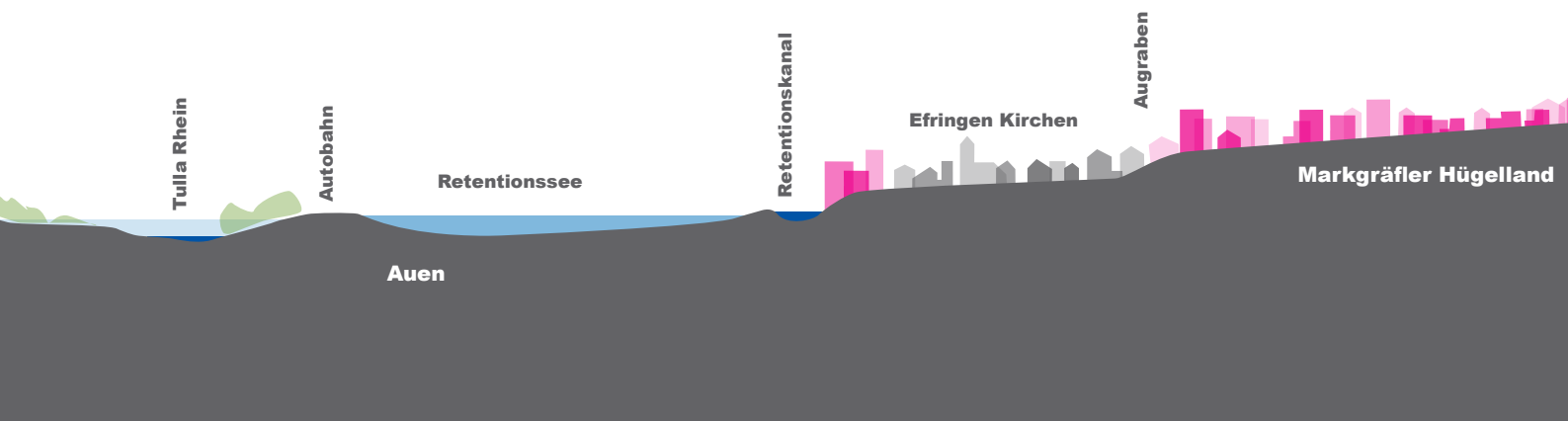
© ETH Zürich Basel

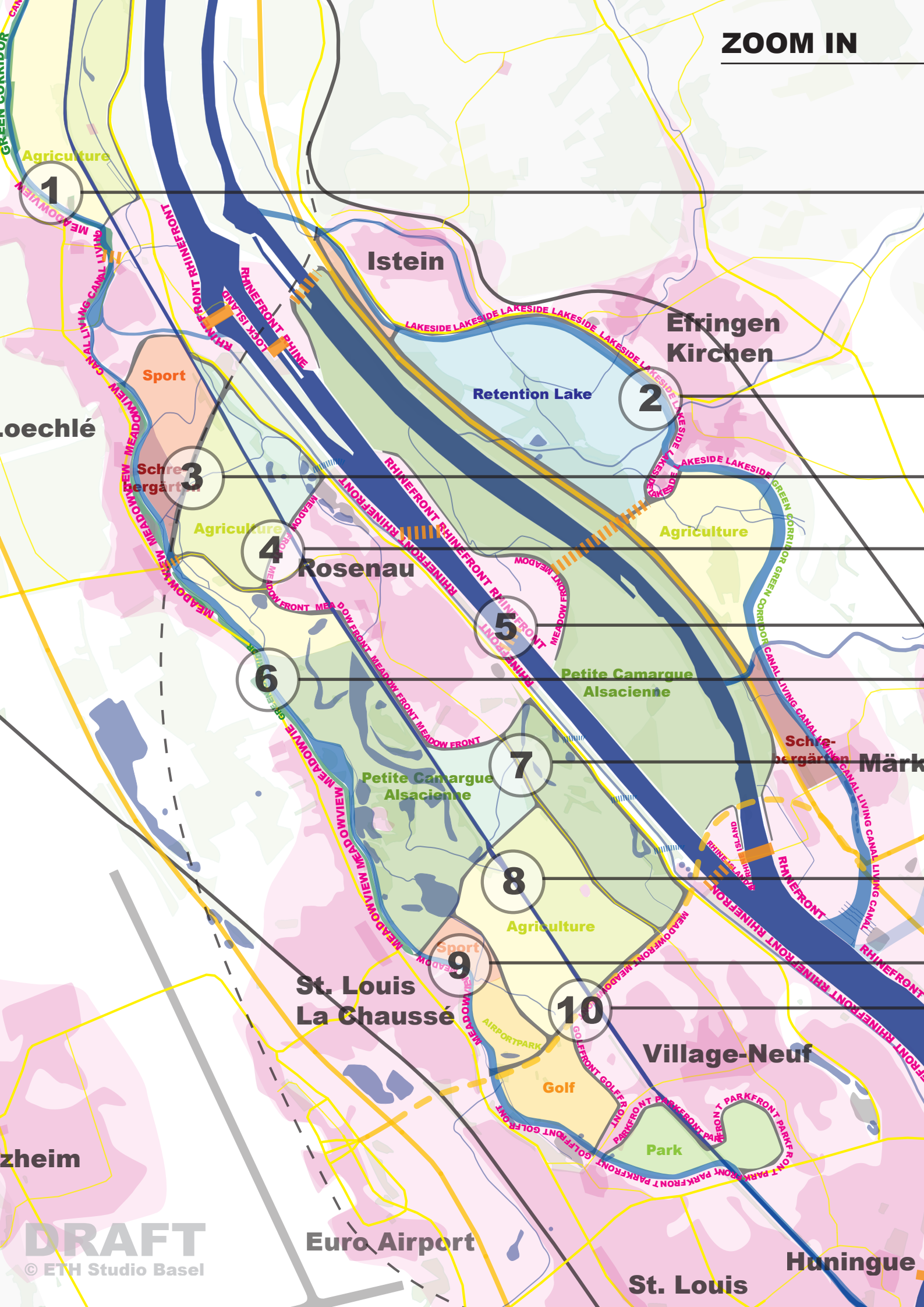
new buildings
existing villages
permanent water
retention flooding

SECTIONS



CONTRASTING NATURE AND DENSITY IN THE EXISTING TOPOGRAPHY





1

2

3

4

5

6

7

8

9

10

Istein

Efringen Kirchen

Retention Lake

Rosenau

Petite Camargue Alsacienne

Petite Camargue Alsacienne

St. Louis La Chaussé

Village-Neuf

Golf

Park

Euro Airport

St. Louis

Huningue

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1° MEADOW VIEW

2° RETENTION LAKE

3° RAILWAY DAM

4° PROTECTION DAM ROSENAU

5° URBAN RHINE SIDE CANAL

6° GREEN CORRIDOR

7° STREET DAM

8° CANAL DE HUNINGUE

9° MEADOW TERRACE

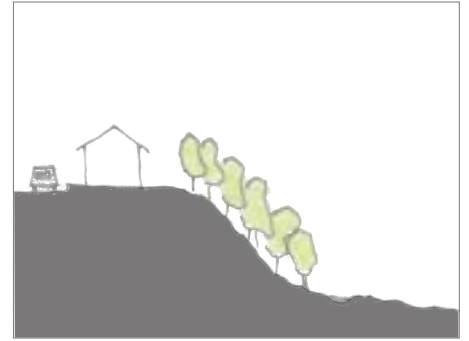
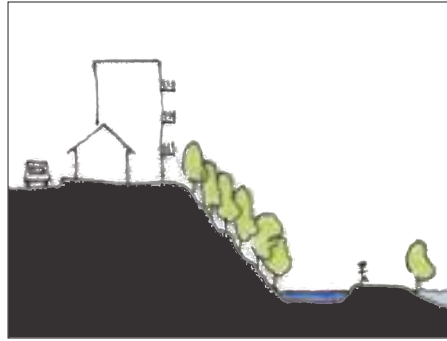
10° HIGHWAY DAM

VISION 2077

NOW

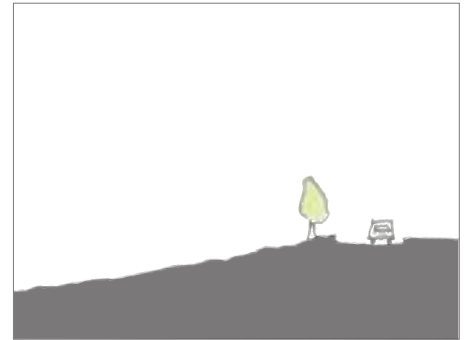
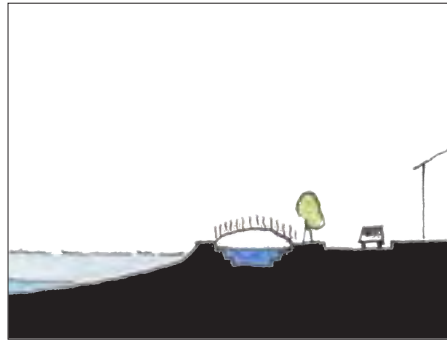
1° MEADOW VIEW

Stichrain remains, but the beautiful view over the meadows is enabled by higher buildings along the edge.



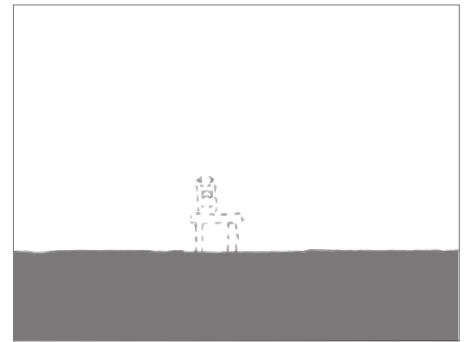
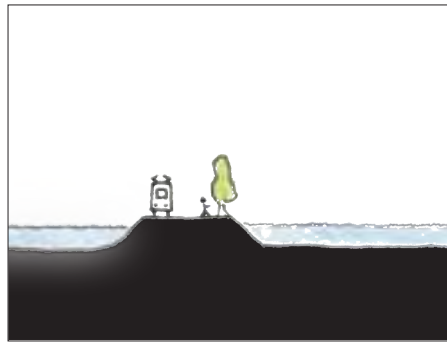
2° RETENTION LAKE

The retention lake can be emptied before flood arrives and then filled up for retention. It creates an attractive waterfront and ice-skating in winter could become possible.



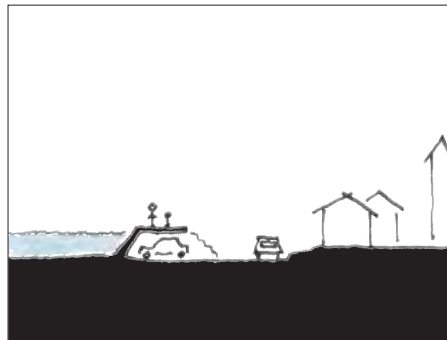
3° RAILWAY DAM

The planned railway connection between Freiburg and the EuroAirport (vision 2020 metro basel) must be built on a dam or a bridge. The dam could also be used to separate different basins.



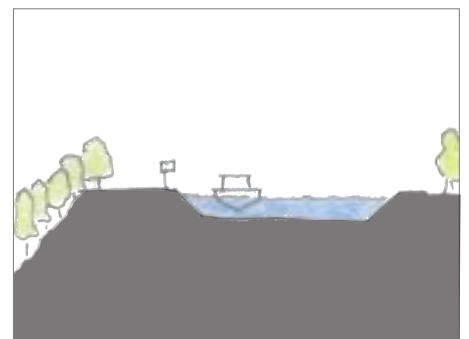
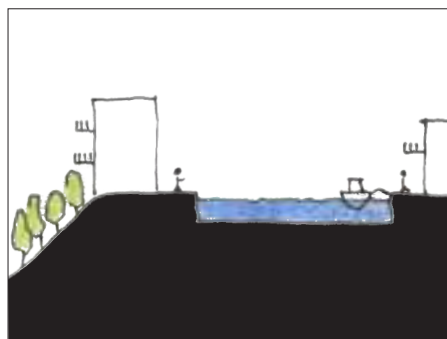
4° PROTECTION DAM ROSENAU

Dams to protect the villages in the meadows could also be used as a garage or other needed infrastructure. It becomes the character of an ancient city-wall.

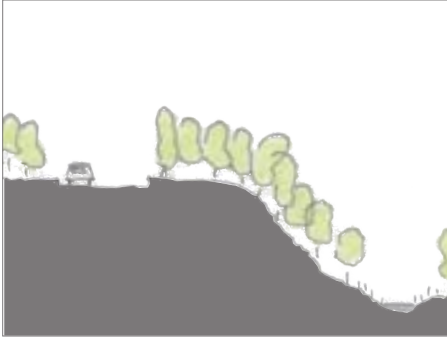


5° URBAN RHINE SIDE CANAL

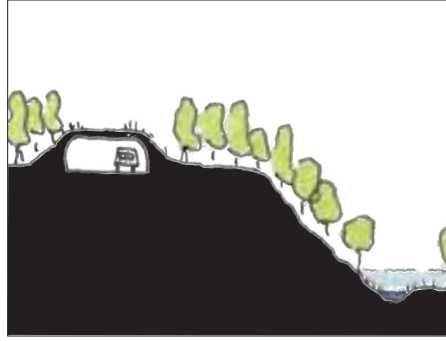
Along the artificial Rhine Side Canal a venizian urbanity would offer attractive housing.



NOW

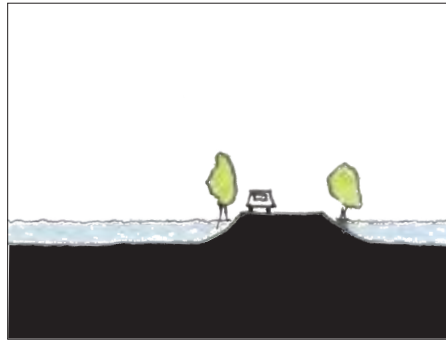
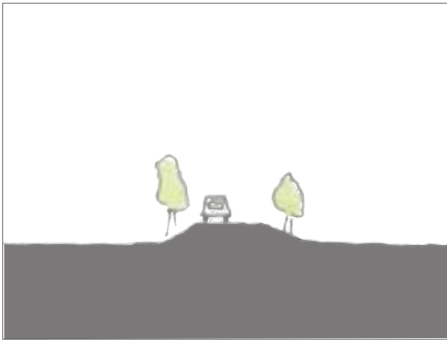


VISION 2077



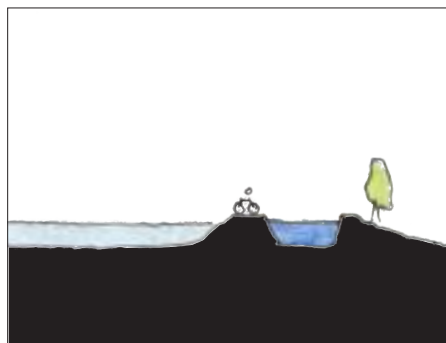
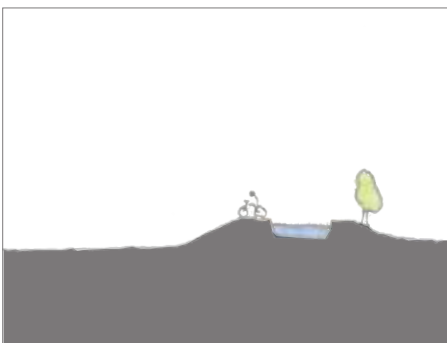
6° GREEN CORRIDOR

Green corridors are connections between nature reserves in the meadows and green belts like the Forêt Domaniale de la Hardt on the Niederterrasse.



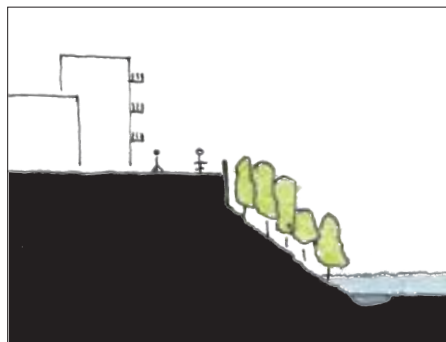
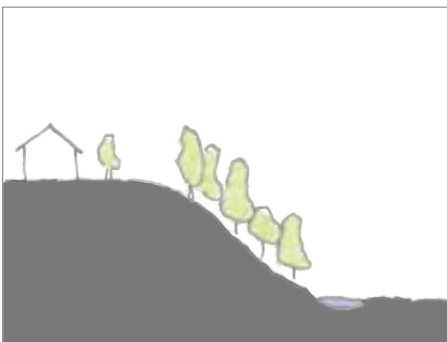
7° STREET DAM

Many of the streets in the meadows are already built on old Tulla-dams. In several cases this topography has to be raised up.



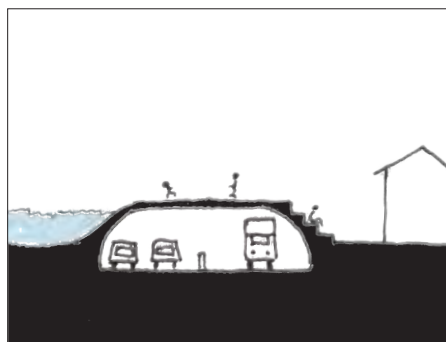
8° CANAL DE HUNINGUE

The Canal de Huningue will be dug out to increase the possible water flow to fill the basins fast enough.



9° MEADOW TERRACE

Near the airport the Augraben could be designed as a promenade with hotels and a nice view.
The lower part of the Stichrain remains untouched.



10° HIGHWAY DAM

The planned highway-connection between Märkt and the EuroAirport could be covered with green and be used as a dam. So it doesn't become a noisy border between Village-Neuf and the meadows.



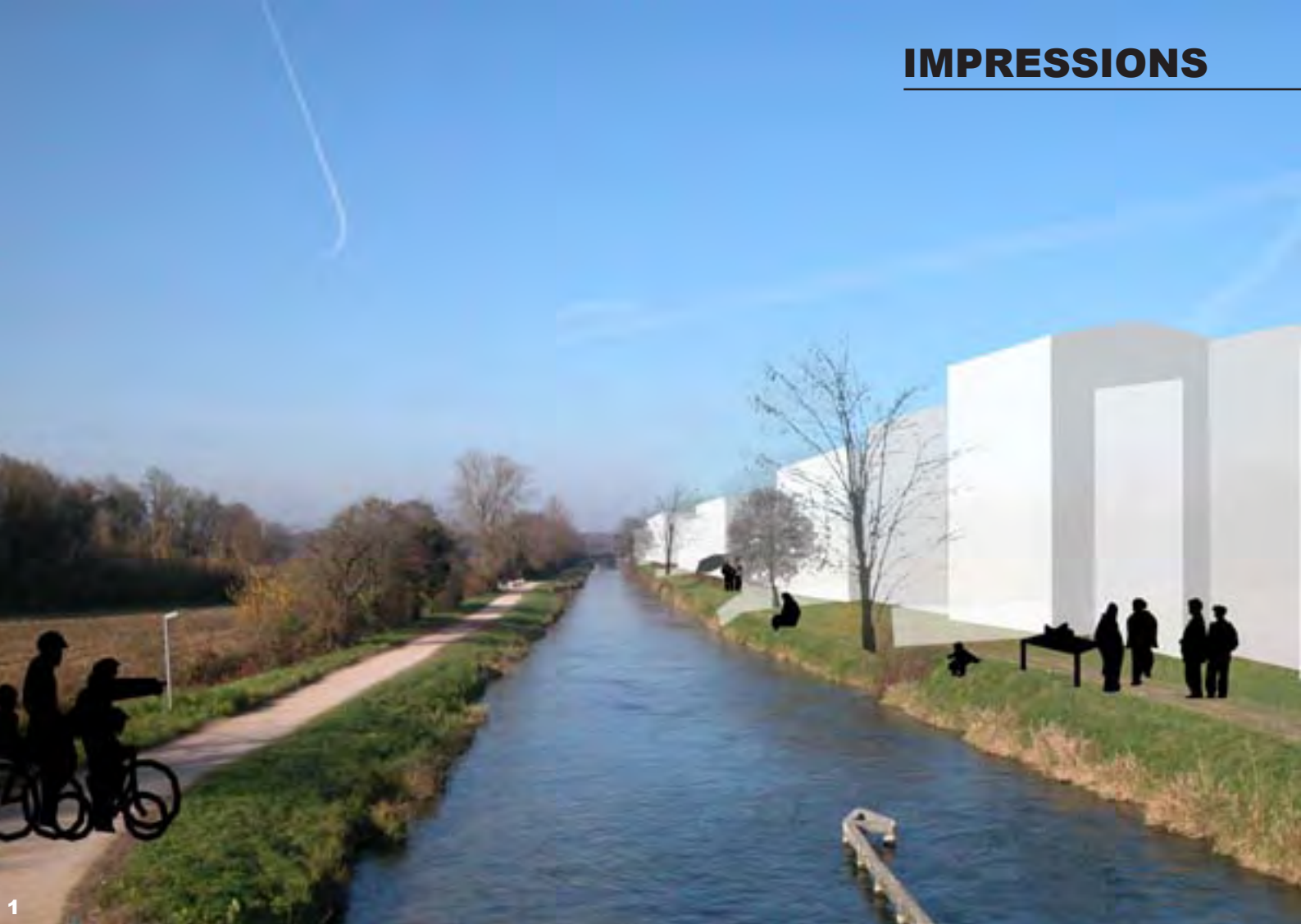
photo: sebastien closs



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1 Airport City behind *Petite Camargue Alsacienne*

2 Urban Rhine Water Front near Port City



1 *Canal de Huningue* and canal housing Rosenau

2 Flooded retention basin and existing street dam

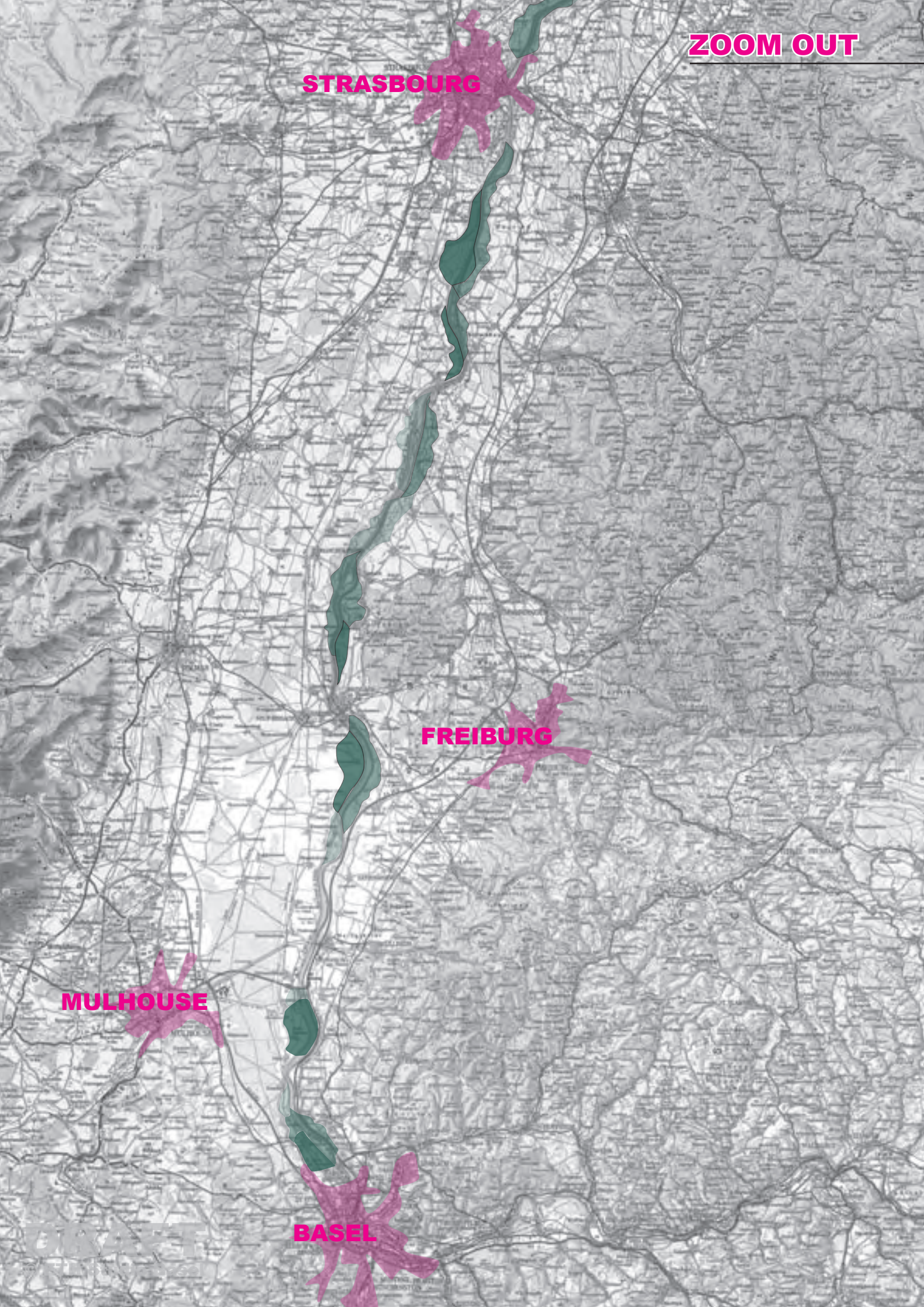
ZOOM OUT

STRASBOURG

FREIBURG

MULHOUSE

BASEL





Cities

Urban Meadows

- Step 1
- Step 2
- Step 3