IMLA 08

INTERNATIONAL MASTER OF LANDSCAPE ARCHITECTURE

www.designservice24.ch

Stuttgart Region
Peri-urban landscape scenarios
across market forces and state regulations

IMLA Main Project 1 Spring 2009

Preface

Across the market forces and state regulation

The project work of 12 landscape architects from Switzerland, Germany, Italy, Poland, Mexico and China, who participated in the IMLA course are presented in this brochure. The site of the porject work is in Stuttgart region, encompass mianly three locations: Stuttgart (core region), Metzingen and Münsingen. After a one-week site survey, working groups were formed regarding individual interests as the bases of following design. The final project work presented here mingled diverse backgrounds, experience from the students and the output of the teaching, which contains three modules: Planning and design method, planning and project management, IT in planning and deisgn.

Supervisor team_IMLA 01/2009

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Technique follows nature

01

Aufgabe

Der Projektperimeter auf der Filderebene in der Region Stuttgart soll unter Berücksichtigung periurbaner Aspekte analysiert und beplant werden. Anhand von Szenarien wird eine Konzeption erarbeitet und in einer Dokumentation und einer Präsentation publiziert.

Ziel der Arbeit

In einer Gruppenarbeit werden die Themen Erholung, erneuerbare Energien und Naturschutz im Grüngürtel zwischen Stuttgart und Nürtingen bearbeitet. Für jedes Thema wird in einem individuellen Arbeitsteil, ein Extremszenario erarbeitet. Aus diesen drei Extremszenarien geht ein dynamisches Optimalszenario als Resultat hervor.
Übergeordnetes Ziel ist Potentiale für multifunktional genutzte Flächen herauszufinden und hierfür eine dementsprechende Konzeption zu erstellen. Jeder untersucht als erstes sein spezielles Fachgebiet auf diesen Aspekt hin und erstellt ein oder mehrere Szenarien hierüber. Als letztes werden die verschiedenen, themenspezifischen Variationen zu einer Ideallösung zusammen gefasst, die alle drei Aspekte berücksichtigt.

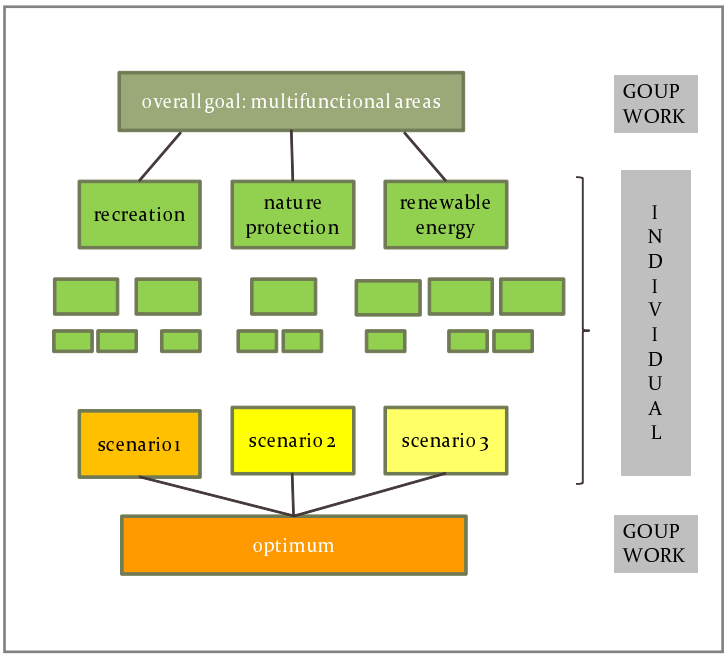
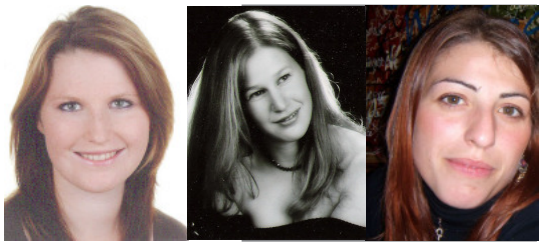


Figure 1: Working process



Team / author

Stuttgart Group I

Martina Tuda, Germany
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Supervisors

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Concept 01

Nature follows techin-que

Technique follows nature

01

Haupziele für die Landschaft der Region Stuttgart

Flächen sichern, Erholung vor der Haustüre und die natürlichen Lebensgrundlagen bewahren sind die Hauptziele der Landschaft der Region Stuttgart. Die Bevölkerung ist in den letzten 40 Jahren um 26 % gestiegen, die Siedlungs- und Verkehrsflächen jedoch um 92 %. Um diesem Flächenverbrauch entgegen zu steuern fördert der Verband Region Stuttgart interkommunale Gewerbegebiete sowie Umnutzungen von bereits bestehenden Gewerbegebieten. Die Grüngürtel und -zäsuren sind ein weiteres Instrument um die Zersiedelung und Flächenverbrauch zu reduzieren und zu kontrollieren. Sie sind jedoch nicht nur gegen den Flächenfrass zu nutzen, sondern sichern auch die Erholung vor der Haustür und können einen Teil der natürlichen Lebensgrundlagen bewahren. Diese Ziele decken sich mit unseren Ansprüchen an die Landschaft

Figure 2: Region Stuttgart-Nürtingen

Figure 3: Region Stuttgart

Projektgebiet Filderebene

Die Filderebene ausserhalb von Stuttgart ist eine alte Kulturlandschaft im Umbruch. Die BezeichnungStadt-Landschaft beschreibt die Ebene am besten, obwohl der Ausdruck in diesem Sinne nicht korrekt ist. Die vielfältgien Nutzungen sind eine Chance, birgt aber auch grosse Konflikte. Der Name Filder kommt von Felder= Landwirtschaft, die die Ebene schon seit geraumer Zeit prägen. Die äusserst fruchtbaren Lössböden sind prädestiniert für landwirtschaftliche Nutzung. Die Filderebene ist äusserst flach, mit vielen Landwirtschaftswegen durchzogen und es wird intensive Bewirtschaftung betrieben.

Focus theme 1

Martina Tuda

Renewable energy

01.01

Topic 1 Erneuerbare Energien

Ziele

Ziel ist die Lebensqualität der Bevölkerung zu erhöhen, indem Freizeit- und Einkommensmöglichkeiten geschaffen. Im Gebiet selbst sollen Innovationen leicht zu integrieren sein und so ein mannigfaltiges Angebot an „Staunenswertem“ entstehen. Dies wiederum bietet zahlreiche Anknüpfungspunkte für soziale und interkulturelle Kommunikation.
Hier steht wiederum der Standort nahe Messegelände und Flughafen in Kombination mit der hervorragenden Anbindung, die in naher Zukunft noch verbessert wird (Stuttgart 21), im Vordergrund.

Ziel ist es einen sparsamen Flächenverbrauch zu unterstützen, indem bestehende Strukturen aufgegriffen und bearbeitet werden und Flächen in multifunktionaler Weise (Fokus Wissenschaft/ Forschung und Freizeit) genutzt werden. Naturschutzgebiete, Wasserflächen und wertvolle Landschaftsbestandteile sollen erhalten bleiben und in das Konzept integriert werden, was ein Plus für den Erholungs-, Ästhetik- oder Energiewert mit sich bringt.
Ziel ist es ein nachhaltiges, reversibles Konzept zu erschaffen, dass durch seine vielseitige und variable Flächennutzung Trends integrieren, auf Veränderungen reagieren

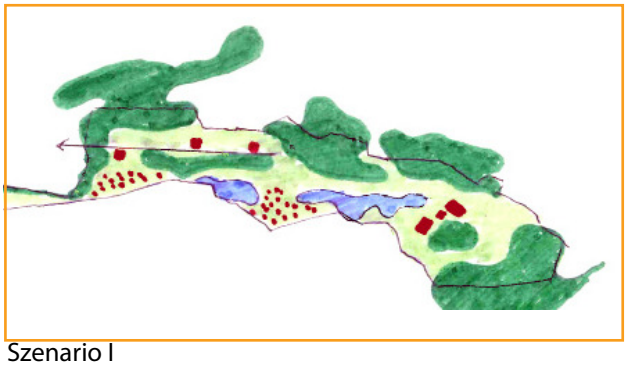
Analyse

Aus diesen optischen Untersuchungen kristallisieren sich zwei Fokusgebiete heraus, die aufgrund ihrer Nähe zum Flughafen- und Messegelände und ihrem zusammenhängenden Gesamtgefüge als Fokusgebiete für die weitere Bearbeitung / Konzeptfindung) ausgewählt wurden. Karte mit Verbindungen
Des Weiteren wird der Grüngürtel in Zonen mit verschiedenen Schwerpunkten eingeteilt, um verschiedene Nutzungsmöglichkeiten zu offerieren, mit denen weitergearbeitet werden kann.

Szenario

Szenario I

Situierung: zwischen Flughafen, Plieningen, Scharnhauser Park und Neuhausen auf den Fildern Besonderheiten:
• in direkter Nähe zu Flughafen und Messe
• Autobahn führt von West nach Ost durch das gesamte Gelände, sehr gut Anschluss möglichkeiten
• gute Erschließung aufgrund der Ackerpar zellierung, Gehöfte verstreut vorhanden
• Blickachse zur Kirche von Plieningen Bisherige Nutzung: Agrarlandschaft Straßensystem:



Szenario I

• Autobahn A8 (von West nach Ost)
• Echterdingerstraße, Bernhauserstraße Mittlere Filderstraße, Neuhauserstraße, Scharnhauserstraße, Plieninger Straße, Elly-Beinhomstraße, Nürtingerstraße
• zahlreiche Feldwege (in nebenstehender Skizze nicht verzeichnet)

Focus theme 1

Martina Tuda

Renewable energy

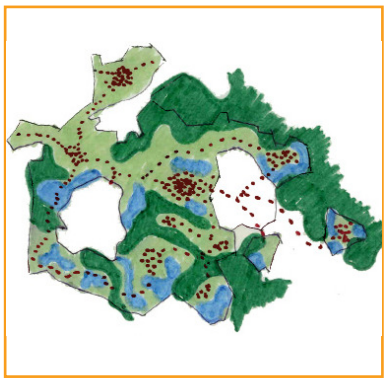
01.01

Zusammenfassung:
Waldkörper bilden einen grünen Rahmen, fangen das Gesamtgefüge auf und vermitteln ein Gefühl der Sicherheit. Fortlaufend auftauchende Elemente homogenisieren und beruhigen das Bild. Aus dem Zusammenspiel zwischen organischen und parzellierten Strukturen, dem Gegenüberstellen von Natur und Technik und den zahlreichen Aufmerksamkeitspunkten sowie Sichtbeziehung ergibt sich ein dynamisches Gesamtbild. Agrarische und forestrische Strukturen werden aufgegriffen und verarbeitet, um das Areal in die Umgebung einzubinden und die Besonderheit des Ortes zwischen Technik- und Landwirtschaftsstandort zu würdigen und gleichzeitig zwischen diesen eine Verbindung herzustellen

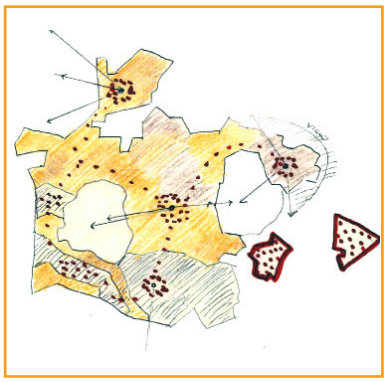
Szenario II

Situierung: um Harthausen und Wolfschlugen
Besonderheiten: in der Nähe von Flughafen und Messe, Siedlung Harhausen von Gebiet umgeben, Siedlung Wolfschlugen in unmittelbarer Nähe, Autobahn führt am Westrand vorbei, sehr gute Erschließung, Gehöfte verstreut vorhanden
Bisherige Nutzung: Agrarlandschaft
Straßensystem:
•Autobahn A27
•Reutrlingerstraße, Sielminger Hauptstraße, Bah hofstraße, Bernhauserstraße, Kirchstraße Esslingerstraße, Nürtinger straße, Stuttgarter Straße, Waldenbucher straße, Grötzingerstraße, Raiffeisenstraße
•zahlreiche Feldwege (in nebenstehender Skizze nicht verzeichnet)

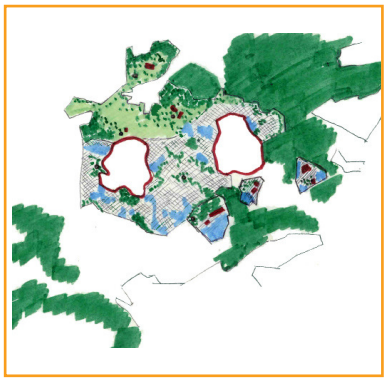
Zusammenfassung:
Das Gebiet beginnt im Nord-Westen mit einer parkähnlich gestalteten Zone (Eingangsfunktion), geht
langsam in eine, zur Biomasseproduktion umgeformte, Ackerlandschaft über und endet im Süd- Osten aufgrund der abnehmenden Bodenqualität mit einem Ausstellung- und Forschungsgelände. Bestehende und teilweise am Rand ausgeweitete Wälder bilden einen grünen Rahmen und bestehende agrarische Strukturen werden aufgegriffen, um das Areal ortstypisch in die Umgebung einzubinden. Siedlungen und Höfe werden in den Park integriert und ziehen d raus ihren Nutzen.



Szenario II Variation 1



Szenario II Variation 2



Szenario II Variation 3

Focus theme 2

Yvonne Keller

Erholung

01.02

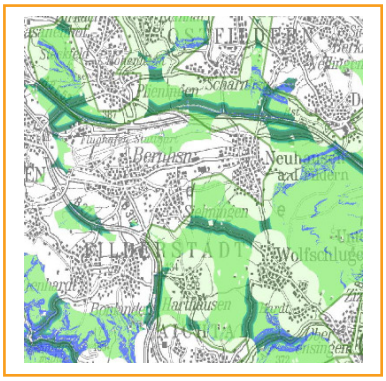
Ziele

• Lebensqualität erhöhen => Freizeitmöglich keiten schaffen, Innovationen integrieren,
• Nachhaltige Planung => Dynamik schaffen, langfristige Planung, Trends integrieren
• Multifunktion => Freizeit, Ökonomie, Wissenschaft und Forschung

Ziel ist die Lebensqualität der Bevölkerung zu erhöhen, indem Freizeitmöglichkeiten geschaffen werden.
Die Freizeitmöglichkeiten gehen einher mit der Erhaltung des orstypischen Lanschaftbildes. Im Gebiet selbst sollen Innovationen leicht zu integr eren sein und ein grosses Angebot an vielfältigen Sportarten vorhanden sein. Der Standort nahe Messegelände und Flughafen in Kombination mit der hervorragenden Anbindung, die in naher Zukunft noch verbessert wird (Stuttgart 21), bietet die Möglichkeit innovativ zu sein und Trendsportarten anzubieten.
Ziel ist es einen sparsamen Flächenverbrauch zu unterstützen, indem bestehende Strukturen aufgegriffen und bearbeitet werden und Flächen in multifunktionaler Weise (Freizeit) genutzt werden. Naturschutzgebiete, Wasserflächen und wertvolle
Landschaftsbestandteile sollen erhalten bleiben und in das Erholungskonzept integriert werden.

Analyse

Prinzip: Modulares Analysesystem Erstellen der Kartengrundlagen: Vorgehensweise:
Es werden Potentialgebiete für Erholung herausgefiltert die sich als Naherholungsgebiete (Radius 3000m oder Errichbarkeit 30min) eignen und anschliessend mit den Aktivitäten überlagert.
Als erster Schritt werden alle Gebiete gesucht, die sich nach den gesetzten, verschieden bewerteten Kriterien generell für Erholung eignen.
Danach werden als zweiter Schritt die potentiellen Gebiete in die verschiedenen Lärmempfindlich keitsstufen eingeteilt.
Als dritter Schritt werden die Aktivitäten darübergelegt.
Die Aktivitäten wurden anhand von Ansprüchen



an die Topographie, Infrastruktur und Landschaftsbild definiert.
Bewertung des Ergebnis:
Aufgrund der fehlenden Informationen über das Landschaftbild und die Frequenz der Strasse ist das Ergebnis nicht absolut.
Um eine genauere Aussage machen zu könnnen, bräuchte man die genauen Zahlen der Tagesgangwerte der Fahrzuege, die die Strassen frequentieren.
Es wurde mit Richtwerten von 1000 Fahrzeugen/h gerechnet.
Lärmempfindlichkeitsstufe 1 = 50 dB
Lärmempfindlichkeitsstufe 2 = 55 dB
Lärmempfindlichkeitsstufe 3 = 60 db
Ebenso fehlen zuverlässige Lärmwerte für den Flughafen.
Die fehlenden Daten über das Landschaftsbild haben vor allem auf die Beurteilung der Aktivitäten und ihre Eignung in den jeweiligen Landschaftsräumen einen Einfluss.
In der vorliegenden Ergebniskarte wurde den Aktivitäten wie wandern und biken die Areale zugewiesen, die eine Hangneigung zwischen 15% und 25 % haben. Dieses Ergebniss sollte aber noch mit einer spezifischeren Bewertung ergänzt werden.
Anhand einer Analyse des Orthophotos lässt sich sagen, dass der Grüngürtel durch die Landwirtschaftliche Nutzung einen eigenen Charakter enwickelt hat. Als typisch sind die weiten Ebenen und die peripheren Streusiedlungen zu bezeichnen.

Focus theme 2

Yvonne Keller

Erholung

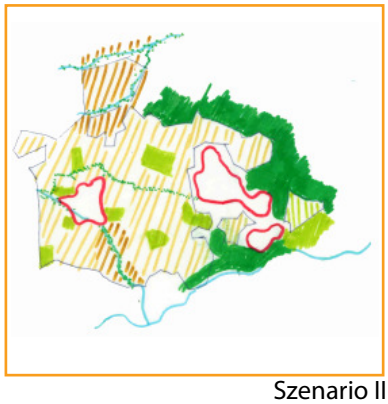
01.02

Szenario

Szenario 1 Filderebene

Die Landschaft auf der FIlderebene ist Landwirtschaftlich orientiert und durch die Bewirtschaftungswege gegliedert. Diese typischer Struktur soll erhalten bleiben und mit der Erholung kombiniert werden.
Um die intensive Landwirtscahft mit den Monokulturflächen für die Erholung interessanter zu gestalten, werden einige Streuobstwiesen angepflanzt. Die Gewässer werden renaturiert und mit Picknickplätzen ausgestattet.
Die bereits bestehende prägenden Achse wird mit einer Ufergehölzen entlang des neuen Bachlaufes gestärkt.
Neben der Messe wird eine neue Trendsportanlage gebaut. Die Architektur orientiert sich an der Messe und passt sich somit ins Gesamtkonzept ein.

Szenario I



Szenario II

Szenario II Harthausen

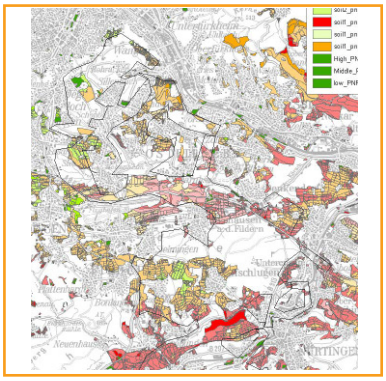
Die Landwirtschaftsfläche wird mit Streuobstwiesen angereicht und mehr Struktur eingebracht.
Die Streuobstwiesen werden als Hain augebildet und bieten den Erholungssuchenden einen ruhigen Platz um zum Verweilen. Ausgestattet mit Picknickplätzen, bieten sie den Besuchern alles was sie begehren.
Der Fokus der Landschaft liegt in diesem Areal auf den beiden renaturierten Flüssen. Umgeben von Ufergehölzen und einladenden Brachen, sowie eine extensive landwirtschaftlichen Nutzung zieht das Gebiet die Erholungssuchenden an.
Ausgestattet mit Picknickplätzen bieten diese zwei Areale genügend Platz , um sich zu erholen und die Natur zu beobachten.

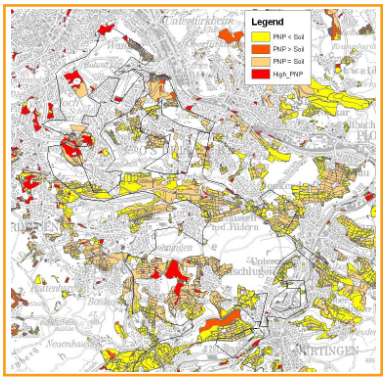
Focus theme 3

Denise Ascione

Potenzielle Naturschutzgebiete

01.03





Ziele

• Lebensqualität erhöhen: Freizeitmöglichkeiten Einkommen Hygiene (Licht, Raum, Luft, Ruhe) Innovationen integrieren soziale und kulturelle Kommunikation
• Nachhaltige Planung: Dynamik schaffen langfristige Planung Trends integrieren
• Natur bewahren, schützen, entwickeln: Schutzgebiete erhalten Grünräume und Biotope Vernetzung
• Multifunktion Erholung/Freizeit: Ökologie Ökonomie Wissenschaft/Forschung

Ziel ist die Natur zu bewahren und schützen und damit die Lebensqualität zu erhöhen. Die Wasser-, Biotop-, Bodeneigentümlichkeiten sollen geschätzt werden, um eine verträgliche Entwicklung zu schaffen, indem Freizeitmöglichkeiten, Ökologie, Ökonomie und Wissenschaften ein dynamisches System bauen und sich gegenseitig unterstützen.
Die Flächen werden in multifunktionaler Weise verstanden, um eine vielfältige Landschaft zu schaffen, die die Bevölkerung mehr denn je an ihre eigene Heimat binden soll.
Veränderungen sollen naturnah integriert werden. Eine Verbesserung der Landwirtschaft soll nach einer biologischen und biodynamischen Philosophie erreicht werden.
Zusätzliche Grünräume werden geschaffen, insofern sie Biotope bzw. Naturschutzgebiete verknüpfen und stärken.

Analyze

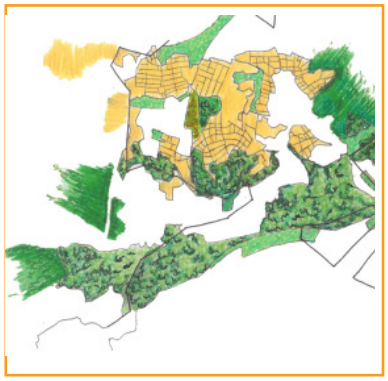
Die Filderebene ausserhalb von Stuttgart ist eine alte Kulturlandschaft im Umbruch. Die BezeichnungStadt-Landschaft beschreibt die Ebene am besten, obwohl der Ausdruck in diesem Sinne nicht korrekt ist. Die vielfältigen Nutzungen sind eine Chance, birgt aber auch grosse Konflikte. Der Name Filder kommt von Felder= Landwirtschaft, die die Ebene schon seit geraumer Zeit prägen. Die äusserst fruchtbaren Lössböden sind prädestiniert für landwirtschaftliche Nutzung. Die Filderebene ist äusserst flach, mit vielen Landwirtschaftswegen durchIm letzten Schritt werden die Karten übereinander gelegt, damit die Konfliktgebiete mit verschiedenen Werte hervorgehoben werden können.
Bewertung des Ergebnisses:
Da die meisten potenziellen Naturschutzgebiete auf hochwertigen, agrarischen Böden stehen, wurde die Bodenbewertung in die Analyse aufgenommen und mit den oben beschriebenen Ergebnisse überlappt. Da beide Karten eine 3-stufige Skala besitzen, ergibt sich nach dem Überlappen eine 9-stufige Skala (Boden1 mit Natur3, Boden1 mit Natur2, Boden1 mit Natur1… usw.).
Aufgrund der Tatsache, dass während der Gis- Analyse viele subjektive Bewertungen vorgenommen wurden und da die Daten nicht ausreichend für einen so umfangreiches Thema sind, sollten die Analysekriterien nochmal geprüft werden und dann weitere Untersuchung vor Ort gemacht werden.
Trotz diese Anmerkungen werde ich mit den vorher beschriebenen Ergebnissen weiter arbeiten.

Focus theme 3

Denise Ascione

Potenzielle Naturschutzgebiete

01.03



Szenario

Biotop- und Gewässerstruktur

In dieser Karte ist die Gewaesserstruktur gezeigt mit Ueberschwemmungsgebiete die renaturiert werden sollen.
Die Biotope sollen geschützt und womöglich integriert und vergrössert werden.

Grün- und Agrarlandstruktur

Das Ackerland wird in ein biologisches und biodynaschises System transformiert; genauso wie die Obstwiesen.
Im Süden wird ein Grünkorridor als Naturschutzgebiet gestaltet, der eine Verknüpfung zwischen dem bestehnden Wald im Nordosten und dem Naturschutzgebiet in Südwesten sein soll.
Dieser Korridor soll als Park verstanden werden, in dem Funktionen wie wandern und radfahren möglich sind.

Straßensystem:

• Autobahn A27
• Reutrlingerstraße, Sielminger Hauptstra ße, Bahnhofstraße, Bernhauserstraße, Kirchstraße Esslingerstraße, Nürtinger straße, Stuttgarter Straße, Waldenbucher straße, Grötzingerstraße, Raiffeisenstraße
• zahlreiche Feldwege.
Die Strassen in der Umgebung werden ausgebaut, damit die Strassen, die sich innen befinden weniger benutzt werden.

Kombination

Potenzielle
Naturschutzgebiete

01.04

Konzept

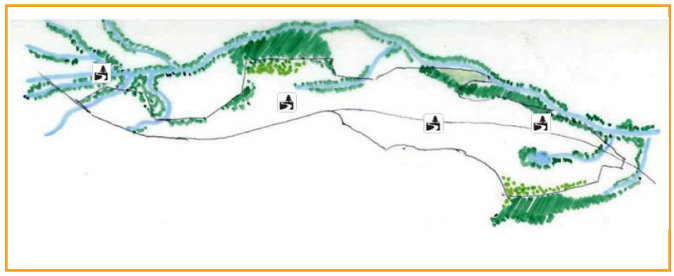
Das Gesamtgebiet ist in Vorrangzonen eingeteilt, die die jeweilige Hauptnutzung wiederspiegeln. Alle anderen Themengebiete werden allerdings bei der späteren Variantenbildung berücksichtig und fließen ebenfalls in den Entwurf ein. Die späteren
Zoomgebiete wurden nochmals weiter spezifiziert.
Als verbindendes Element zwischen den einzelnen Teilbereichen fungiert ein übergeordnetes Wander- und Radwegenetz, von dem weitere kleinere
Routen abzweigen.

Szenaio

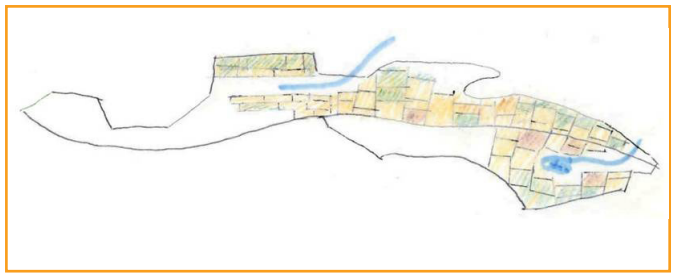
Szenario I Filderebene

Das Konzept berücksichtigt die Nähe zu Flughafen und Messe und richtet seine Funktionen dementsprec end aus. Ziel ist es Technik und Natur zu vereinen, um so „Hand in Hand“ eine neue Kulturlandschaft einzuläuten. In Westen entsteht ein Trendsportbereich; der nächste Abschnitt dient als Eingangsbereich; ein Ausstellungsbereich für Innovationen, eine umgenutzte Ackerlandschaft und ein Energiepark runden das Konzept ab.

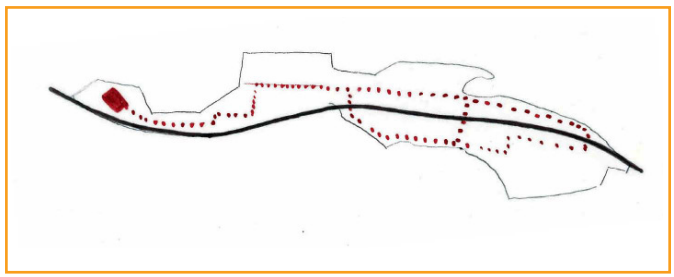
Das Gesamtgebiet sowie die einzelnen Teilbereiche dienen als Puffer- und Übergangszone zwischen Flughafen/ Messe und Umgebung – Technik und Natur – Infrastruktur und Siedlung. Renaturierte Bäche und Waldstrukturen bilden den räumlichen Rahmen, wohingegen eine auf Biomasseproduktion ausgelegte Ackerlandschaftdas ortstypische Erscheinungsbild erhält. Energetische Features, ein Ausstellungsfeld und die Aktivsportmöglic keiten spiegeln den Aspekt Technik und Innovation wieder und laden zu modernen Aktivitäten ein.
Biomasseproduktion ausgelegte Ackerlandschaft das ortstypische Erscheinungsbild erhält. Energetische Features, ein Ausstellungsfeld und die Aktivsportmöglichkeiten spiegeln den Aspekt Technik und Innovation wieder und laden zu modernen Aktivitäten ein.



Grünstruktur



Agrarnutzung

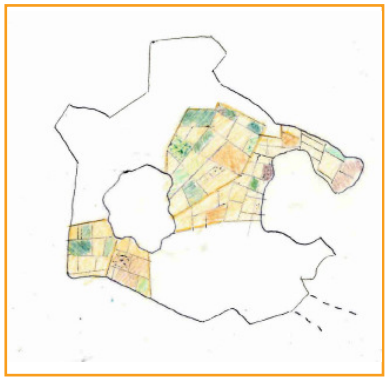


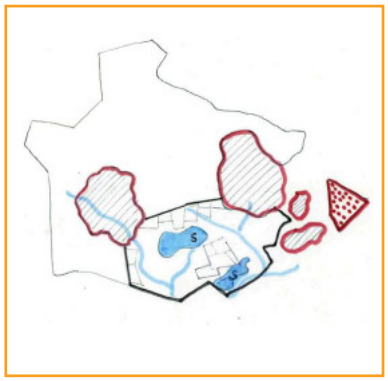
Sport- und Freizeit

Kombination

Potenzielle
Naturschutzgebiete

01.04





Szenario II Harthausen

Generell soll das Projekt sowohl technikorientierte als auch erholungssuchende Menschen anziehen. Hierfür werden technisch-energetische, ökologische und ästhetische Features kombiniert, wobei sich ein Nord-Süd-Gefälle erkennen lässt.
Bestehende Wald- und Grünstrukturen bleiben er alten und wirken formgebend, Flüsse renaturiert und Auengebiete ausgeweitet; Ackerstrukturen werden aufgegriffen und multistruktural gestaltet. Als Besonderheit gelten die Modellsiedlungen und die Ausstellungs- und Forschungsfläche im Südensowie die kleine, autarke Showcase-Siedlung im Osten.

Ausblick

Da diverse Verknüpfungsmöglichkeiten zu anderen Grünkorridoren (z.B. Landschaftsparken) bestehen, kann das angewandte System beliebig weitergeführt werden. Genauso verhält es sich mit anderen Betrachtungsaspekten, die problemlos in das modular aufgebaute System eingefügt werden können.
Mit geeigneten Promotiontechniken und dem Rückhalt in der Bevölkerung, kann das Projekt eine Selbstdynamik hervorrufen, die durchaus erwünscht ist und das Konzept positiv erweitert. Das System sollte für alle offen sein und auch Ansätze wie privat public partnership berücksichtigen.
Ziel ist es in Teilbereichen die Region und die Landschaft einem Strukturwandel zu unterwerfen. Die vorherrschende Kulturlandschaft - und damit auch die Öffentlichkeit - soll weg von einem postromantischen Landschaftsbild hin zu einem Natur und Technik vereinendem Gesamtbild geführt werden.

Concept_02
Focus_theme_01

Stuttgart Group II

Between
Conflicts
and
Potential

02.00

Focus theme I

02.1

Agnieszka
Gorniak
Make multifun-
cionality a reality

02.1

Introduction Group work

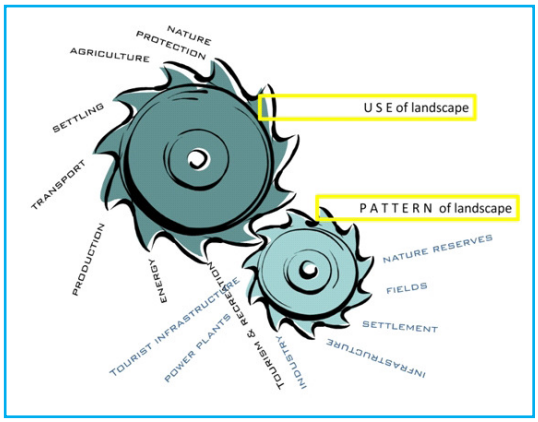
This group work is based on the mutual understanding of existing conflicts between various driving forces in Stuttgart region. The main output of group work were detecting the conflict areas by overlapping potential areas for development of one main land use regarding to the criteria, and develop one method for evaluating possibilities of compilation of land uses in measurable way). The idea was to gain together a clear method of finding appropriate focus areas to be developed later as individual projects. The method of finding the focus areas have been used differently by each of student according to requirements of the individual idea and outcomes of individual part.

Focus theme 1
Introduction

The tendency of multifunctionality in landscape is a sign of general changes in the world: the physical - growth of human population and reduction of open spaces, and the mental changes in human awareness of the world as a holistic structure - called now the transdisciplinary scientific evolution.

Growing land pressure and environmental problems evoke the human consciousness of how high the demands on the landscapes will be in the future. The landscape will serve simultaneously the following functions: ecological, economic, socio-cultural, historical, and aesthetic. In this regard, landscape needs to be a very complex phenomenon. Single disciplines can only discover and describe small parts of the landscape as a whole. To understand landscape fully and address its challenges, discrete disciplines have to work together.

This paper is a report about the study on Stuttgart region's landscape in context of visual impact of multifunctionality on a future image of landscape. The study begins with reflection about the relationship between pattern and function in landscape. This relation is broadly used in landscape ecology issue to identify and analyze the changes in landscape, observing themas particular homogenous units called landscape metrics. In continuation of the study the multifunctional solutions in representative spot of Stuttgart landscape are experimented and their impact to the scenic values of landscape is evaluated. As a final result, the recommendations for applying of multifunctionality to landscape are presented in conclusion part of this paper. That complete multifunctionality is emerging solution, especially in counties where the amount of free spaces is limited. However, the solutions have to be designed with awareness of their visual impact into the landscape. The function and the pattern affect each other, so the perfect combination of many functions should be also a perfect integration of new and old forms in landscape.



Team / author

Stuttgart Group II

Agnieszka Gorniak Poland

Supervisors

Roman Lenz, Christian Küpfer, Ellen Fetzer

Focus_theme_01

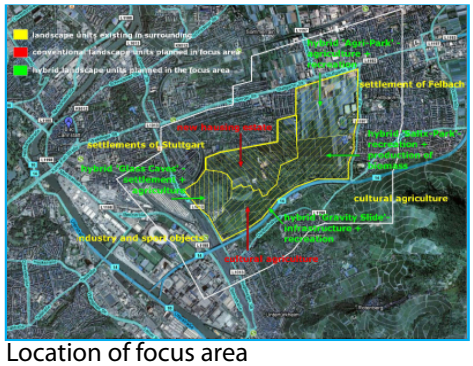
Agnieszka Gorniak

Make multifunctionality a reality

02.01

Focus area

The focus area is located on a border between Stuttgart and Fellbach. It spreads out over two hills, altitude of about 291 and 316, 308m above the see (one of the hills has double top), with the lowest point about 240m. The slopes are not so steep, mostly 5 and 8%, the steepest is 15%. It makes this area suitable for both potentials agriculture and development. Also because of the hills, there are good view points to east part of Stuttgart, partly to Neckar valley and to surrounding hills of Fellbach and Untertürkheim. The cities border between the towns cuts the area in the middle , direction N-S .



Location of focus area

Scenario

1. Salix Park -biomass production + recreation

• Function

Production of biomass from Salix viminalis in 3-years circle of production Keeping the production in3 years circle and in different age (height) of plants in each part of field makes it possible to use the area every year also for recreation.

• Recreation

Organised as temporary forms of recreation located in intentionally left gaps in the field

Visualization of salix park

2. Agricultural Park, recreation + production

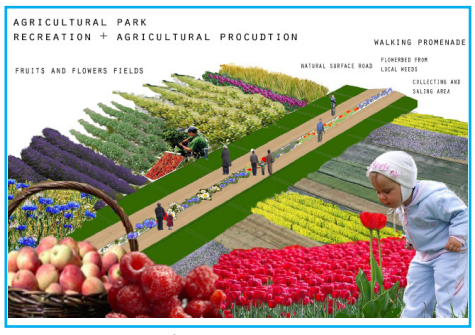
• Function

Production Production of fruits, vegetables and flowers with possibility of selling the products on place. The farmers can cultivate the ground themselves or rent it to other people. The place has a character of kind of market.

• Recreation

Walking along the fields and observing the process of production of plants, watching the weeds flower bed

In vegetational season self-collecting of products and buying them on place -'spring flowers day', 'first fruits day', 'first vine'etc.



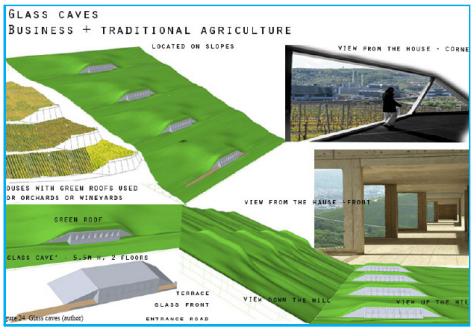
Visualization of agriculture park

Focus_theme_01

Agnieszka Gorniak

Make multifunctionality a reality

02.01



Visualization of glass cave

Visualization of gravity slide

3. Glass Caves
• Function:
Traditional agricultural production-vineyards or orchards (in this case formed, not natural fruit trees). The production is run mostly by human power, no heavy machines there.
Location for business activities The buildings called here Glass Caves are built on a slopes as long and flat construction with one or two floors (up to the relief) and green roofs. The houses can be used as business offices, small conferences and training places, architecture offices, etc. The roofs are completely covered by vegetation so from the top of the hill and from each of the houses the other building are not visible. Watching the houses from down the glass front will dominate but may fit to industrial neighbourhood. Because of glass front and green roofs the view from the houses is open to landscape. Together with vineyards or orchards just beside the window the impression of being far from urban area is high.

4. Gravity slide
• Function
1. Infrastructure (mobility) The aim of the construction is to support existing infrastructure with one way pedestrian slide, down the hill.T here is no walking way to the towno n that side of the hill, also classical pedestrian way along the big road would be not of high recreational quality. Sliding down allow to pass the road fast without noticing the noise and smell. Also the localization of the construction ona green belt along the road allows to gain the area for recreation without lost in agriculture or settlement.

2. Recreation Sliding down the hill with view to the landscape can be pleasure and relaxing, especially for a children and young people.

Summary

The aim of this project was to check how much the visual aspect of Stuttgart' region landscape can be changed when new functions will be provided. Assuming the next step in managing of spatial development in the region would be a broadly understood multifunctionality it is necessary to check how much it may impact the future panorama of the region. The idea was to make an visionary experiment based in reality of representative spot from the study area (focus area), design the multifunctional solutions for this place responding to future needs and physical conditions identified there, make and visualization of the designed ‚hybrids' and finally to test them against the scenery characteristic identified in current Stuttgart landscape.

Focus_theme_02

Stuttgart Group II

Between
Conflicts
and
Potential

02.00

Focus theme II

02.2

Title

A method for sustainable land use scenarios Filderebene 02.2

Introduction Focus theme 2

Introduction

The ambition for creating this method was to develop a system that would be able to provide scenarios for realistic and sustainable land-use combinations. The term 'sustainable' in this case consists of the following points.

- Improvement of general quality of life for local inhabitants
- Protection of sensible areas
- Protection/strengthen of weak stake holder groups
- Encouragement of long-term investments

The GIS analysis done by the students during the GIS II seminar, demonstrated that many areas show high potential for more than one land use. Since the Stuttgart region is one of the most densely populated districts in Germany the most effective and sustainable combination of land uses has to be found to be able to provide the necessary variety and quality of uses. The limited space and the high demands for different land uses make it unavoidable to combine as many utilisations as possible on the same location. The method described in this report was developed to subdivide and filter the different land uses and as a result suggest possible combinations, which could be used as a valuable basis for discussion during the decision making process and deliver fundamental information to the planning professional who creates the detailed site development plan.

Methodology

The method consists of four procedures.

1. Analysis of GIS data The data generated during the IMLA GIS II seminar held from the 23rd to the 27th of March in Rapperswil/CH was analysed to identify possible land use combinations and/or conflict situations.

2. Tolerance/Impact Study (TIS)
The second process, named by the author the 'Tolerance/Impact Study' assesses possible land use combinations using their individual conflict potential for selected impacts.

3. Substantiation of results for specific sites
Carrying out an aerial photograph analysis in addition to the dissection of the outputs of the IMLA GIS seminar concretized the results of the first two steps. In addition to that detail was added to the TI study in terms of analysing existing land-uses bordering the sample site and introducing mitigating measures as additional factor.

4. Scenario development
The final step consists of the development of scenarios visualized using 3d graphics and photo-collage techniques. These scenarios can be used as basis for official decision making processes as well as the development of design guidelines for certain land-use combinations.

Team / author

Stuttgart Group II — Chistoph Danker — Germany

Supervisors — Roman Lenz, Christian Küpfer, Ellen Fetzer

Focus_theme_02

Christoph Danker

A method for sustainable land use scenarios Filderebene

02.02

Sample site

The area selected is located in the northwest of the study area on the eastern border the community of Möhringen (approximately 30 000 inhabitants (5)). The site is currently used for intensive and traditional agriculture (fruit tree meadows). The area represents the typical small town of the Filderplain with surrounding industrial and agricultural uses.
In the direct proximity of the site the following land-uses are established.

- South and southeast: light industry (Mercedes Benz)
- West and east: residential settlements
- Northeast: Forest used for recreation
- Northwest: intensive agriculture The state road B 27 divides the site, which does not have any significant topographical features.

During the GIS seminar the site was found to be suitable for a range of land-uses. The gathered information was exported and overlaid with the aerial photograph to visualize the multiple potential of the area. The potential land-uses were used as base data for the site specific TIS. In addition to that all existing land-uses surrounding the area were taken into consideration.

Scenario 1: Recreation/Traditional Agriculture
The TI study shows that the two land-uses evaluated compliment each other in most cases. The traditional agricultural use includes a recreational value within itself; noise and visual impacts as well as pollutant emissions are low to intermediate. The development could be implemented with minimal mitigating measures. On the eastern site of the sample area existing fruit tree meadows could be extended to create a visual and physical link between the existing environment and the newly developed site.

The agricultural areas on the western side of the area are integrated into a public park that borders the existing residential development.

Scenario 2: Recreation/Intensive Agriculture
The integration of recreational uses into intensive agricultural areas cannot be seen as an ideal combination. The recreational potential of the intensively used areas are low-intermediate to low. The planting does usually not provide any shelter for recreational users, the visual attractively must be rated intermediate to intermediate-low. Taking these points into consideration in combination with the regular pollution through fertilizers and other chemicals as well as the use of large machinery, it can not be the aim to create more then a recreational 'add on' to the agricultural land. This would consist mainly of a network of shaded walkways and public open spaces, which would provide sufficient facilities to the inhabitants from the surrounding communities for their daily and after work activities. The larger public open spaces would be concentrated on the eastern side of the sample area where existing fruit tree meadows provide a higher level of attractiveness and shelter. In the western part of the area additional walkways could be used for different sports activities.


Scenario 1


Scenario 2

Christoph Danker

A method for sustainable land use scenarios Filderebene

02.02

Scenario 3

Scenario 3: Recreation/Light Industry

As shown in the TI study above the merging of recreational and light industrial uses turns out to be more difficult than the first to scenarios. Mitigating measures will have to be introduced to lower the impacts of buildings, traffic and pollution. Depending on the design philosophy applied these measures can push the overall development of the area in different directions. Buildings could be integrated into the recreational uses and provide space for sports activities like climbing and 'abseiling'. Façade design can also add to the lowering of the visual impact of the constructions. An other way to mitigate is the implementation of dense planting and earth modelling to create attractive open spaces and lower the impacts of the industrial developments. In the photo montage below the second way of mitigating was applied. A buffer zone was introduced between the existing settlement on the western border of the study area to block visual and noise impacts. On the eastern border of the newly developed industrial area an extension of the existing fruit tree meadows provides additional space for recreational use. In addition to that extensive tree planting within the industrial area and along all newly constructed roads raises the overall quality and allows for the future introduction of more recreational uses within the industrial area.

Conclusion

The main goal of this project was to develop a transparent, logic and adjustable system to generate realistic and sustainable scenarios for land-use combinations. The method as described in this report respects all these points mentioned above. Since the results are based on a numeric system, it is easy to follow and control, mistakes can be discovered and corrected. The categorization is based on certain impacts land-uses apply to their environment and their tolerance levels to these impacts. This clear structure puts the stakeholder in the strong position to demand clear responses from the designer or investor. However the system does not suggest being an integrated design tool. It should rather be used before the actual design process starts to define problems and potentials the designer has to deal with and present his solutions to the stakeholder groups. In addition to that the system was designed to be highly adaptable to specific site conditions. Impacts and their values can be changed freely as long as the consultant has the necessary skills and experience. Unfortunately the values of each impact have to be set individually for each site and specific land-use, which makes the procedure time consuming and complicated, if a certain number of land-uses and impacts are to be evaluated as part of the planning process. During this phase of the process the risk of fraudulence is high and authorities would have to put measures of control in place to avoid problematic base-data.

Focus_theme_03

Stuttgart Group II

Between
Conflicts
and
Potential

02.00

Focus theme III

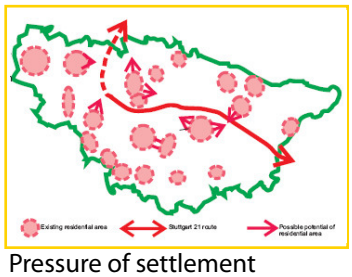
02.3

Title
Weave the fibers
of Filderpark

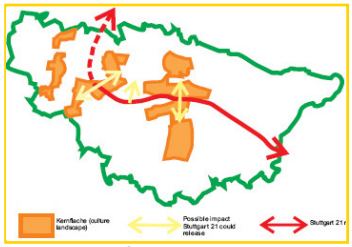
02.3

Introduction

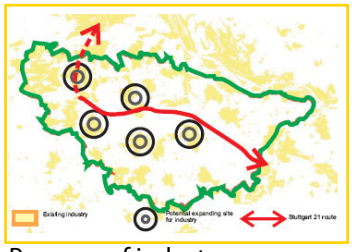
Despite the overall decrease of population tolls high during the last several years, Stuttgart region kept sucking inflow of people from the other region in Germany, which create a stable trends of population increase. Due to the immense population density in this region, the concept to integrate the recreationals function into the regional plan has been embarked,
Among these various “park” plan, The plan for filde park is the first batch to be released. The main idea of this plan is to take advantage of the local culture landscape to form three landscape scenic belts stretch out from north to south. Among these three culture landscape belt (Kernflaeche), various scenic spots (church, palace,tower) were dotted and were connected by the recreational roads. The dotted scenic spots with the footpath, the nets which composed of water system, greenery,and the culture landscape belt account for the main three elements of the whole concept. With the further development, the new-built-exhibition center and Stuttgart 21 project, which is intended to connect Stuttgart and Ulm by making a shortcut throughout filderpark region, it is necessary to reorganized the whole plan of this region.
The aim of the work here is to design a method in order to generate a revision of filderpark plan, by which we can work on some single sites, and finally syntheses the whole plan for Filderpark.
The title of the project describe the whole process: weave the sample fiber, gain the final plan.



Pressure of settlement



Pressure of open space



Pressure of industry

Team / author	Stuttgart Group II	Chinyi Gu	China
Supervisors	Roman Lenz, Christian Küpfer, Ellen Fetzer		

Focus_theme_03

Qinyi Gu

Weave the Fiber of FIlderpark

02.03

Method

The whole process of the method began with site survey in the Stuttgart region. After relevant data and information acquisitions the DPSIR analysis was applied to combine main clues to connect all the plots in the whole planning process.

In the DPSIR analysis, the crucial driving forces were figured out, and the pressure released by the driving forces were evaluated. In the case of Filderpark, the main driving forces should undoubtedly be the increase population and booming industry, which after all account for origin of other driving forces like residential area development and recreational areadevelopment. Stuttgart 21 accelerates the economic development , and the conflicts of land use in this region as well. Other information gained by the site survey, other relevant approaches were also took into consideration to obtain a clear image of how the landscape operates. In the next stage, two instruments were employed, tried to formulate the measure, which can settle the current problem in the land.

- By GIS analysis, the main driving forces and their spatial relationship were discovered.
- By impact and tolerance matrix, the interrelationship of their properties were valued, compared, either optimal, balanced combinations of the driving forces. or the exclusive, dominant driving forces were generated.

Afterwards, for the potential (combinable driving forces) certain mitigating measures would be taken. Two alternative scenarios would be run, with different measures and concepts. For the conflicts, if effective measures taken would significantly change the value in the IT matrix, so that it can be converted into potential instead, then we run the process again for this combination, Otherwise, we decide the exclusive, dominant use in this area. Subsequently, both the scenarios of potential and conflicts (multifunctional use and single use) will be evaluated by success control table.

Finally, the scenarios with all information package would be submitted to the public and the specialists. After commenting, the decision would be made, with one scenario as a base for the final design.

Scenario

Potential

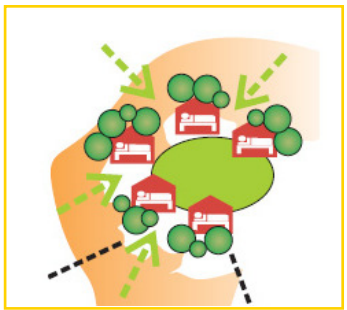
A site between Bernsburg and filderstadt is filtered out.After GIS analysis and IT matrix analysis, the general potentil appears to be a mainstream.

- Green area is the site where Light industry+high density residential are recommended
- Brown area is the site where Medium density residential + agriculture are recommended

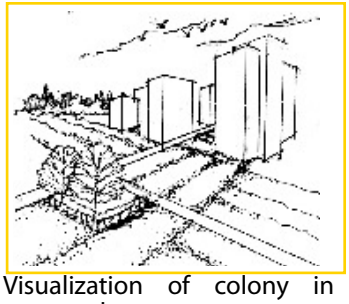
Two patterns of development are here exploited and displayed as scenarios.

1. Scattered pattern

The industry, residential are packaged in groups They act more or less similar to the natural formed colony, distributed along the existing road, and therefore turn out to be a relatively sparse, even distribution.



Colony form of medium scattered pattern in density residential



Visualization of colony in scattered pattern

Focus_theme_03

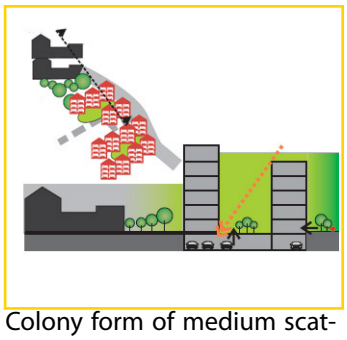
Qinyi Gu

Weave the Fiber of FIlderpark

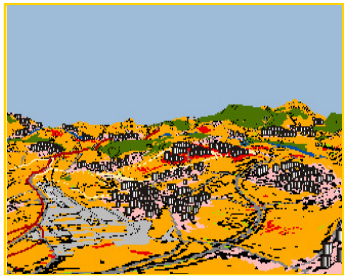
02.03

2. Compact pattern
In contrast to the scattered pattern, the compact pattern make the residential, factory organized in a condensed manner, which theoretically could reduce the land consumption.

Conflict
Besides the place with potential to develop as a multifunctional area, there are also some places with mutual potential from different driving forces, which are not compatible to each other (evaluated with the impact and tolerance table)
In this case a choice would be made to determine which driving force would be dominant



Colony form of medium scattered pattern in density residential



Scenario of conflict area, with build-up rather than maintaining

Summary
The method is trying to develop a relative objective planning in contrast to the conventional, more subjectiveoriented planning.
After public and specialists evaluation. the final plan will be developed based on the scenarios for each single region. It is the single plan, work as a basic unit, the inner skeleton or the fiber to form the overall planning for filderpark.
The proposed plan showed in the following indicates the possible multifunctional area, conflict area, and area which should be maintained or newly created as core zone.

Concept_03

Focus_theme_01

Stuttgart Group III

Solution
for peri-urban area

03.00

Focus theme I

03.1

Title
economy + agriculture + ecology + energy = recreation

03.1

Introduction Group work

Despite the individual working throughout the whole span of the project, the work in this group all involve the issue of landscape in peri-urban area. To this point, various possibility and measures were conceived in these paper to develop a better future for the peri-urban landscape in Stuttgart region.

Introduction

Wie funktioniert diese Landschaft? Wie ist Landschaft geregelt? Wie wird Landschaft gesteuert? Wie soll die Landschaft in Zukunft aussehen? Wer entscheidet über Landschaft? Was sind die Möglichkeiten und Bedürfnisse in diesen Landschaften? Wo sind Notwendigkeit und Handlungs-spielraum des Landschaftsarchitekten?
Die Leistung des „ Main Project “ ist kein Planungsentwurf sondern ein gedanklicher Diskurs. Eine aufgestellte (Arbeits-) Hypothese dient als Leitfaden durch die Arbeit und sucht deren Antworten in der Literatur.
„ Ökonomie + Landwirtschaft + Ökologie + Energie = Erholung “ addiert, verbindet und überlappt theoretisch
Gedachtes und teilweise Unausführbares miteinander. Aus den generierten Nutzungsüberlagerungen müssen, für die Bestätigung der Hypothese, Mehrwerte entstehen. Es gilt, diese argumentativ zu kumulieren, um sich für die Steuerung und die weitere Entwicklung der Landschaft engagieren zu können. Die Arbeit ist in diesem Sinne als These zu verstehen, welche nicht empirisch wissen-schaftlich bewiesen wird, sondern Indizien sammelt und zu überprüfen versucht.

Hypothese

Absicht der Hypothese besteht nicht darin, den periurbanen
Raum durch landschaftsarchitektonische „ Kosmetik– Konzepte “ zu qualifizieren, sondern deren Berechtigung herausfordern. Im Zentrum der Betrachtung soll der Mensch und seine Bedürfnisse in Bezug auf seine Erholung stehen. Ferner werden die Zersiedelung und ihr Flächenverbrauch, der Mangel an Nutzungsüberlagerungen und Multifunktionalität infolge der Monofunktionalität und die Möglichkeit zur Wahrung von natürlichen Ressourcen wie Biotopen, Böden etc. miteinbezogen.

Ideal scenario for future peri-urban area

Team / author	Stuttgart Group3	Roman Häne Switzerland
Supervisors	Roman Lenz, Christian Küpfer, Ellen Fetzer	

Focus _theme_01

Roman Häne

economy + agriculture + ecology + energy = recreation

03.01

Erhebungen über den periurbanen Raum

Zusammenfassend wurde in den Abschnitten „ Ein gemeinsamer Nenner “, „Stadtform“ und „Erholung“ erläutert, dass in den Köpfen der Planer die formale Voraussetzung der klassischen Parkformate noch weitgehend verankert sind. Die Form deckt sich j edoch nicht mehr mit den gegebenen Umständen des periurbanen Raums. Das momentane Wundermittel „ Multifunktionalität “ entstand ursprünglich meist spontan aus dem Kontext und es kann somit nur schwierig darauf Einfluss genommen werden. Es dient folglich nur bedingt als Heilmittel der Planung.

Nebst den von Körner vorgeschlagenen Haltungen zur Gestaltung, bzw. zur Nichtgestaltung ist ebenfalls über eine „ geeignete Form “ von Erholungsflächen in der „ neuen Kulturlandschaft “ nachzudenken.

Im Kapitel Landwirtschaft wurde kundgetan, dass der Druck auf die landwirtschaftlichen Flächen keinenfalls abnimmt, sondern zunehmen wird. Zusätzliche Wohnungen, Büroflächen, Verkehrsflächen, Flächen für ökologischen Ausgleich, Energieerzeugung oder Hochwasserregulierung wollen bevorzugt auf landwirtschaftlichen Flächen platziert werden. Zusätzlich muss und lässt sich die moderne Landwirtschaft neu definieren, sie tut dies auch bereits. Für den Erfolg an deren Umbau wird jedoch ein grosser Effort an partizipativen Einsatz gefragt sein.

Im Passus „ ökologischer Ausgleich “ stellt sich die Frage, wie gegenüber Natur eine neutralen Haltung eingenommen werden kann. Es fehlt ein Instrument für den „ erweiterten Naturschutz “, und ein Wille zu einer nachhaltig–verantwortbaren Leistungsfähigkeit des Naturhaushaltes. Ergo ist dieser besser zu schützen und zu optimieren.

„ Ökonomie + Landwirtschaft + Ökologie + Energie = (Nah–)erholung? “ erzwingt also nicht „ neue “ überlagernde Nutzungen, diese werden bereits auf Hochtouren erforscht. Vielmehr werden planerische Paradigmen in Frage gestellt.

Fallbeispiele Filder Park

Bei der Ausarbeitung des Gesamtplans des Filderparkes war ebenfalls die „ Planungsgruppe Landschaftsarchitektur + Ökologie “ beteiligt. Sie erarbeiteten interdisziplinär den „ Landschaftspark Naturraum Filder “ und „ Infrastrukturplanungen im Westlichen Filderraum – Zusammenschau der Umweltauswirkungen und Entwicklungen eines Umweltzielkonzeptes. “ Das Defizit ist nach Brigitte Schmelzer „ die Gesetzteslage, die dem Verband Region Stuttgart keine Trägerschaft zugesprochen hat (so wie das bei der IBA–Emscher erfolgt war)(Schmelzer 2000, S. 25). “ Die Umsetzung liegt damit bei den Kommunen, die Umsetzung hat in keinem (Projekt–)Fall, zum Zeitpunkt des Erscheinen des Artikels, begonnen. Dies einerseits wegen der Konkurrenz des kostbaren Bodens und andererseits infolge der Schwierigkeit der Vermittlung des Landschaftsparks. Da Laien und Politiker das Bild eines englischen Gartens assoziieren, sehen alle Beteiligten der Region verstärkt in der Aufgabe der Vermittlung

Zusammenfassung

„ Ökonomie + Landwirtschaft + Ökologie + Energie = Erholung. “

Die Hypothese beweist sich, wenn die Bevölkerung den periurbanen Raum als „ neue Heimat “ oder Kulturlandschaft von heute annimmt und qualifiziert. Landschaftsarchitektur kann diesen Prozess unterstützen.

Die Frage, ob es den Landschaftsarchitekten in den periurbanen Räumen braucht, kann eindeutig mit „ Ja! “ beantwortet werden. Die Vermittlung zwischen Mensch und Natur ist nötiger denn je. Planung allein ist jedoch kaum in der Lage, die Gesellschaftsentwicklung und die zugehörigen Bilder umfassend zu bestimmen (Bohrmann u.w., 2005).

Periurbane Räume erfordern deshalb nicht Leitbilder gesellschaftlicher Wunschvorstellungen, sondern eine u voreingenommene Haltung und die Förderung des Dialoges zwischen Natur und Kultur.

Focus_theme_02

Stuttgart Group III

Solution
for peri-urban area

03.02

Focus theme II

03.2

Title
Sustainability in the periurban space is not impossible

03.2

Introduction

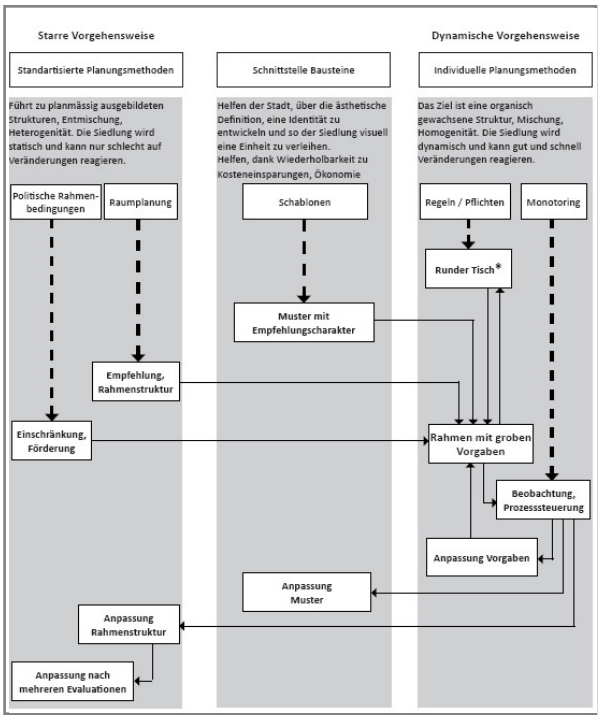
There are a lot of possibilities to avoid land consuming, to avoid the fast growing of settlement. With suitable measures it is possible to make the settlement more sustainable and to improve the living quality of the inhabitants.

Part I

A wide research about the different driving forces and approaches assisting the quantitative growing of settlements in Germany is detailed described in Part I. A research forecasts what will happen with the population and the economy in the next 20 to 40 years, and their influence of the settlements was also made.

Part II

The second part shows possible solutions to turn the quantitative growing in a qualitative one. It contains proposals for future development.
In the last part these proposals were tested in a settlement-model. This model contains a ground-figure-plan and a use-zone- plan and shows in two scenarios the difference between the current the situations at 2025 and 2040. Details of the differences are also shown by visualisations



The proposed procedure or planning (part II)

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Louis Wenger

Solution
for peri-urban area

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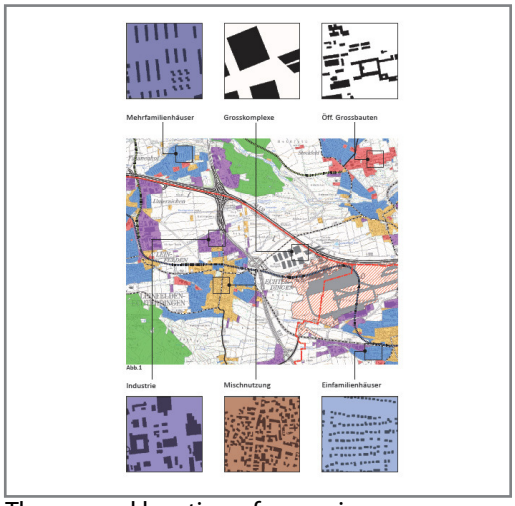
Part III

The scenario generated here indicates the current situation and the outlook in 30 years, when certain measures like green roof is taken to realize the multi-functional use.

The target location of the scenario is chosen in the region of Stuttgart airport. Where various residential forms, industries, mixed use land are widely situated. To ease the process of illustration, a base model is formulated.

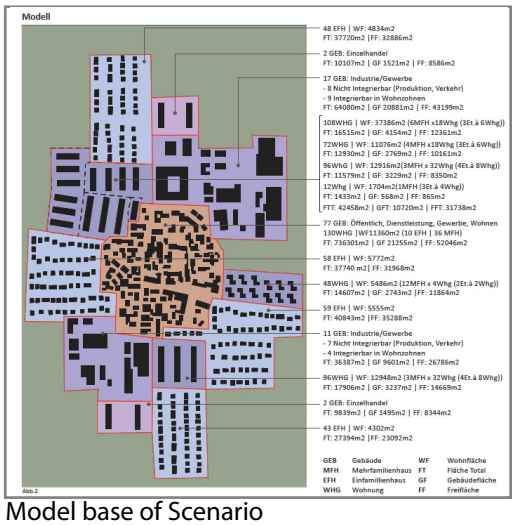


The general location of scenario

Scenario A

The demand of living space will continue to rise in the next several decades, in large part due to the remanence effect (about 66% of single-family house is inhabited by more than 50 years, about 55% of single-family house has only 1 to 2 people live inside). Therefore the large plots, in which only single use will be quite common.

After 2025, the financial framework of the state and municipalities, due to the deterioration the economic situation, will strongly diminished. Devoid of the money, fallow land will be a prevailing problem in the city.



Model base of Scenario

Focus_theme_02

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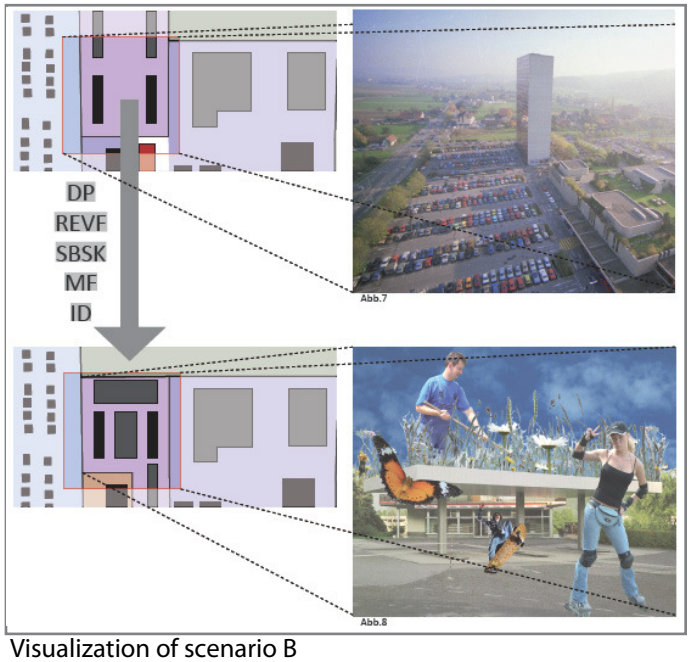
Solution
for peri-urban area

03.02

Scenario B
The demand of living space continues to increase. However, due to the attractive offer in various forms of housing (particularly stress on the rights of older single-family house owners), the increase is relatively small.
The land use defined by the regional planning, with inter-municipal agreement, will focus more on the structure of residential area and the proportion of inhabitants.
After 2025, It is obvious that due to the deteriorating economic situation, budget on housing project will be greatly diminished. To tackle this problem, dismantle part of the old residential area and the city structure will be adapted



Visualization of scenario B

Focus_theme_03

Stuttgart Group III

Solution
for peri-urban area

03.oo

Focus theme III

03.3

Title
Filder plain
Stuttgart
–Landscape
close to settle-
ment 03.3

Introduction

This design exploit the possibility to graft the open space design theory into peri-urban landscape de-isgn, given the resembling of the demand from users in urban space and peri-urban landscape.
Considering the peculiarity of local culture landscape of FIlderplain, on which distributed dense settlement areas, this planning proposed a new concept to realize the following aims:

- Raising the people's awareness of cultural landscape
- Harmonizing recreation + agriculture
- Reduction of urban sprawl
- Preservation of landscape

Analysis

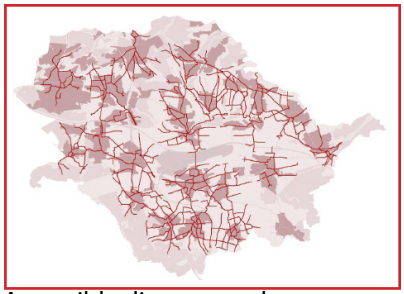
Except for DPSIR analysis, special analysis includes accessibility analysis, culture landscape analysis are applied to generate the gist of the concept.

Concept

A hypothesis "open space= free landscape in the vicinity of residential area" is raised and works as a basis of the concept development.
The author tired to apply various local landscape elements as functional tool to guide and attract the inhabitants and tourists as well. These tools include:

• Open landscape
Open landscape in Filderebene is mainly made up of fields and farmland. The open landscape is not only

Accessible distance to the town center in 30min



Accessible distance to the town center in 15min

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Focus_theme_03

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Solution
for peri-urban area

03.oo

of economical value, but also aesthetic value.

• Vertical structure
Vertical structure like shrubs and trees give a 3D structure of the landscape. Its combination also create a distinctive local landscape image.

• Intermediate destination
The so called intermediate destination try to convert a long tedious farming road into a interesting recreational road. It was designed as a visual attraction and breaks the monotony of the route stretching to the final destination by employ various landscape elements.

• Guiding elements
The row of trees, hedges is about to set along the road, pedestrian, cycling path, to reinforce the sense of direction.
The gap between these green strucuture also provide a "frame" for the visitors to get a view of the local landscape.

Scenario

This concept is finally expressed by two scenarios, which based on the site Echterdingen. This town is situated in 15min walking distance away from the complex of Stuttgart airport and the new exhibition center.

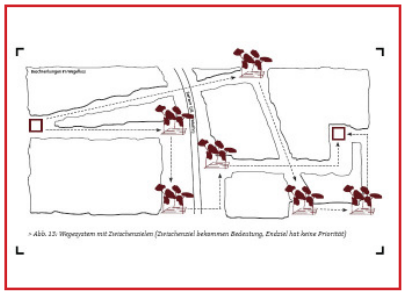


Illustration of in-between destination

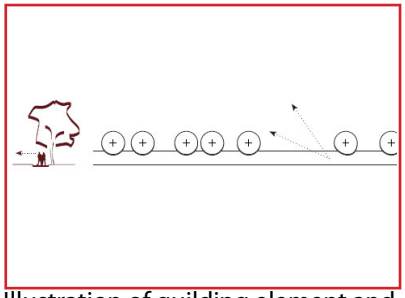


Illustration of guilding element and the Gap in between

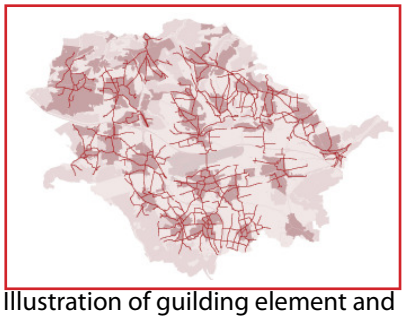


Illustration of guilding element and the Gap in between

Focus_theme_03

Stuttgart Group III

Solution
for peri-urban area

03.oo

• Scenario 1
The open space described in the concept is implemented in the first scenario.
All the measures like intermediary destination (picnic area, seating), guiding elements lead to a raising awareness of the local cultural landscape, which may result from the adoption of the new open space by users. The landscape is structured by small changes, the landscape has hardly changed, in which good soil is also maintained

• Scenario 2
A over-construction is carried on in the second scenario.
This scenario, as shown in the visualization, poses to be a enormous intervention into the landscape. A compact building structure reduces the land consumption. However, the new inhabitants settle down here will impose a severe pressure on the local landscape.

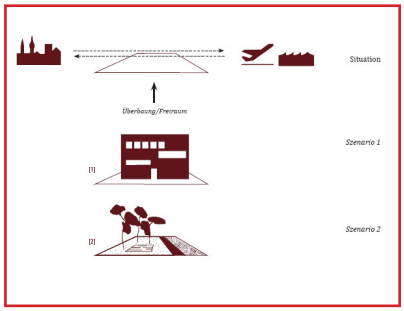


Illustration of scenario1+2


Scenario of build up of open space


Scenario of building up of residential area

Concept_04
Focous_theme_01

Group Metzingen

Bring the vibration into Metzingen

04.00

Focus theme I

04.1

Title

Metzingen
The green ring

04.1

Introduction Group work

Also in the district Reutlingen, walking way from Swabian Alps area and close to city of Stuttgart, located the town of Metzingen. In its past the town developed as a wine town and orchards' area. The big changes came to the town with the Hugo Boss factory and later on with industry of Out Lets. Nowadays the town is fast developing using it economical attraction and spatial condition. The local authority understand that development of Outlet factory brings the economical and promotional profits to the town and look for possibility to keep the shopping visitors longer in the town. With its historical centre and beautiful location in the natural landscape the town has more to offer to the visitors. The Outlet city of Metzingen attracts many daily shopping visitors willing to spend make a shopping and also take a rest. Unfortunately the lack of information about other attractions of the town and readable special structure leading to the old city centre do not encourage them to move from modern shopping area to the historical and cultural zone. The attractions of the town need to be just exposed, available and promoted. The conditions of Metzingen inspired the IMLA students to seek the landscape architecture solution for local problems. Knowing that the improvement of tourist infrastructure can attract the visitors they focused on the two elements: the creating recognizable green and recreation structure and exposing the touristic attraction of the town and its surrounding.

Introduction Focus theme 1

Introduction

This document resumes the concept for the green development of the city of Metzingen; aspiring to organize the structure, the edges of the old city center and integrate the inner and outer part of the city, into a unified whole.

methodology

The methodology to develop the main project Metzingen was divided in four main phases and each of it in steps in order to set a work flow; the aims set for the project were develop from the analysis made from the city of Metzingen in order to set them from a real knowledge of the actual situation of the city.

• 1°Phase. Involve a general analysis of the situation with a visit to the city and research about the geographical localization and historical background.

• 2°Phase. This phase involve a more in-depth analysis, with the help of the DPSIR method, data collection provided by the municipality of Metzingen, and other sort of data provided by GIS; after the analysis of the data the next step was the overlaying of maps.

• 3°Phase. From the overlaying of maps a concept could be developed to propose a solution for the actual problematic.

4°Phase. Involve the final output of our proposal, with a suggested implementation process, criteria of success and monitoring

Team / author

Metzingen Group | Sofia Lopez | Mexico

Supervisors: Roman Lenz, Christian Küpfer, Ellen Fetzer

Focous_theme_01

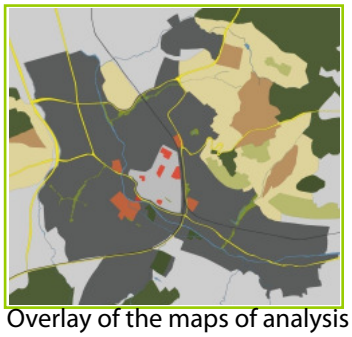
Sofia Lopez

Metzingen
The Green Ring

04.01

Analysis

The various analysis like traffic, green structure, tourism attractions, industry, agriculture were generated based on the existing data base.
By the overlaying of the maps of analysis we can see clearly the important areas of the city in order to help us to make a propose in an attempt to solve the problems of the city.

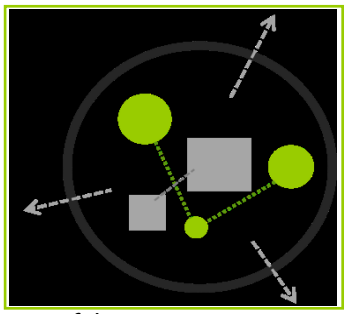


Overlay of the maps of analysis

Aim

By the in-depth analysis made with the help of the GIS data, maps and information provided by the Metzingen municipality; and the final overlaying of the maps of analysis; the proposal for the Metzingen city is: Creation of a defined green infrastructure From here we can set the aims of our concept.
The aims of the concept are directed in order to try to solve the actual situation of the city of Metzingen; divided in three independent elements that actually should be acting as interdependent elements and should be unified as a whole; because each of them affects the others and affects directly the quality of life of the inhabitants of the city.

- Interconnect the existing green structures in the city
- Connect the city with the landscape
- Connect the old city center with the outlet area



Aim of the concept

General concept

In this concept the attempt is to propose and give ideas for the use of the riverbanks; to give continuity to the main structure and for the renaturalization of the river is also necessary the demolition of some buildings and in this area the further creation of a park is proposed; the buildings to be demolished are located directly on the river, the location of the buildings were key in the selection and also that even they are still in use, they are old buildings constructed between (1894-1900) in accordance with the map of urban area [Fig. 4]; an existing parking lot is also included in the renovation plan to be transformed in a

General concept

Focous_theme_01

Sofia Lopez

Metzingen
The Green Ring

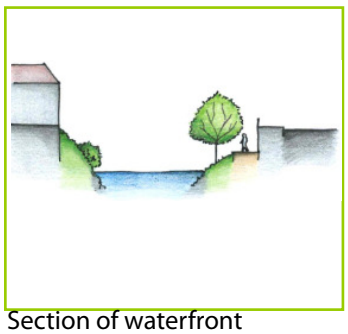
04.01

park. The creation of this park would create the fourth bigger green structure of the city and will be located in a special place near the city center and the outlet city; as well helping to created the connection between this two areas; also will became a focal, center point of the structure and a new landmark to the city. A zoom in this specific area was made in sequence to propose the arrangement of the zones of the park.

Zoom area

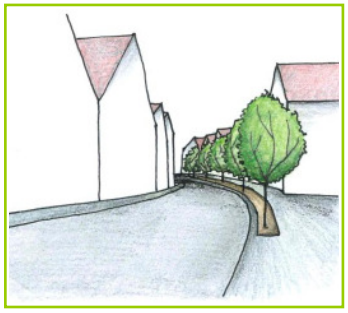
The zoom area that would be became a park is zoned in two: transition zone and an activity zone.
The transition is the zone to pass from one point to the other without staying longer in this area than the the necessary time. This zone runs along the river in the narrowest side limited by the neighboring streets and buildings; this zone would have two set of paths following the natural meandering of the river, each of the paths will have a specific function, one suitable for promenading and the other one for cycling, the materials use for this paths would be as natural as possible avoiding the use of pavements. Some resting areas would be distributed along the path in points of interest. The new vegetation will be also distributed along the paths and as long as possible in both sides in order to bring tranquility to the promenade.
The second zone of the park is activity zone that would offer a range of recreational, relaxation and leisure areas; and is located in the opposite side of the river where the area get broader; this area is planned to have a higher point in the center to created a soft slope running from the river to the center and then running to the street; this situation in order to created a barrier against the street against the noise, and continue movement of the city; to offer a point of relaxation in the middle of the city; parallel to the slope and to enhance even more the feeling of "privacy" the new vegetation would be more dense in the edges getting less dense as long as it move forward to the riverbanks-center of the park.

Zoom-in area



Section of waterfront

Section of waterfront



Perspective rendering

Focus_theme_02

Group Metzingen

Bring the vibration into Metzingen

04.00

Focus theme II

04.2

Title
The green structure of Metzingen

04.2

Introduction Focus theme 2

Introduction

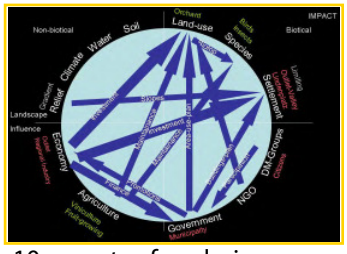
The city of Metzingen used well its chance to develop as trade city investing money and spaces of the town to the needs of local business. Also the possibility of working brought to the town new inhabitants and the same necessity of enlarging the settlement area. In this fast development and also because of existence of natural area in walking distance the needs of making the city green structure has been not a priority. In consequence the green and recreation area are limited to separated spots that are not efficient for needs of current urban environment and mobility. The possibilities of spatial reorganization in order to gain new open spaces within and the improvement of the ecological vales of the town have become the focus questions.

Analysis

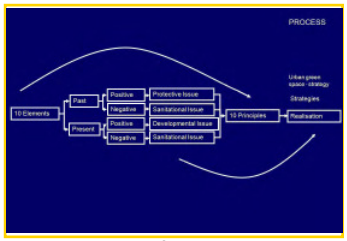
The positive and negative aspects of metzingen in the past, present, and future is deduced and summerzied. These aspects widely cover agriculture, settlement, land use, climate, scenery, etc.
As a conclusion, 10 principles concerning the problem detected in the analysis are developed, working as a guild line for the design.
GIS analysis is also generated, serves as spatial database to deepen the understanding of the situation in Metzingen

Aim

- Promoting public places
- Taking existing green areas and freespace in the city and nearby into account
- Designing the suburban area in order to create a harmonic passage between urbanity and landscape



10 aspects of analysis



The process of analysis

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Supervisors	Roman Lenz, Christian Küpfer, Ellen Fetzer		

Marcus Peter

The green structure of Metzingen

04.02

Concept

All measures taken in the concept can basically be divided into three types:

- Point measure
- Linear Measure
- Area Measure

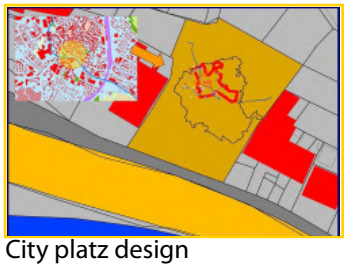
The point measure refers to the small changed to the existing urban context. the linear measure indicates the measure along the street or the river, which can link the internal and external urban structure. The area measure. The area measure, as solution in the urban green structure, provides harmonious transition between the settlement and the countryside.

Design

The design try the possibilities to solve the following several tasks:

- Upgrading of an inner city area
- Connection of previously unrelated districts
- Strengthen the landscape and the relief by the introduction of artist-made elements
- Identifying the process as long-term measure
- Integrate the participation of people

Concept



City platz design

Focus_theme_02

Marcus Peter

The green structure of Metzingen

04.02

Summary

With this work should be shown on the example of the structure of the free space in Metzingen how this town can influence its futural development in the framework of existing conditions and influencing factors. Besides it is necessary to regard the acting conditions and influencing factors. Out of the describing of the landscape deficits and potentials are resulting. These can be improved through sanitational issues, developmental issues and protecting issues in the frame of single strategies.

In order to reach all projected aims several strategies are necessary, which result into one complete concept. At the example of the freespace-strategy it was obvious, that measures in single landscape elements lead to improvements in other areas of the landscape.

Through the interlocking of elements of a landscape park with an industrial area the functions of both space uses can be combined and at the same time free space can be created. Synergy effects particularly result in the nature-near rainwatermanagement.

Dense development areas enable the creation of public parks. The most potential for saving land-consumption of development area has the concentration of parking space, the reduction of private open space and the favourable arranging of parcels.

Concept of residential area

Panorama of Metzingen

Concept 05
Focous_theme_01

From
Metzingen
To
Münsingens
05.00

Concept 05
05.0

Title
Concept for tourism connection to Münsingen
05.0

Introduction

The location of Metzingen in the beautiful natural surrounding and in direct connections to region Swabian Alps opens an interesting opportunity for inhabitants and visitors of the town. The town can became a 'gate to the nature' being the last stop on a way from industrialized Stuttgart area to the natural part of south region. Such an offer well developed and supported by tourist infrastructure would bring to the town also other visitors who stay in the town longer than a few hours. This possibility has been explored in this work in which she describes the potential tourist roads leading to natural and cultural attraction of region and the promotion strategy for such offer.

Analysis

The analysis here is divided into two categories, the SWOT analysis and GIS spatial analysis

1. SWOT analysis

Strength

- Protected: Natura2000, biosphere reserve, Geopark Swabian Alb "(Münsingen).
- Diverse landscape
- Agriculture, especially fruit / wine
- Regional Specialties: Food, markets, etc.
- Cultural Characteristics: Solid, spa, architecture, etc.
- Outlet - Shopping (Metzingen)
- Lots 1 - day - guests (Metzingen)
- Existing buildings / infrastructure (meaning: Münsingen)

Weakness

- No continuous connection between the individua rooms
- Region Tiert benefit little from 3 million visitors Metzingen
- No long-term approach to maintain and finance the Military training camp

Opportunity

- Region identity: What makes the region?
- Through-hiking and biking trails without "gaps"
- Information (signs and information points, such as Old warehouses and even in Metzingen)
- New activities (sports, adventure holidays, inclusion of local Farms, etc.)
- sheep develop concept? (Münsingen)

Threats

- Redevelopment of the old warehouse building possible?
- traffic congestion?
- "Sustainable Tourism" possible?
- Future development control (increasing attractiveness, created new uses pressure?)

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Supervisers | Roman Lenz, Christian Küpfer, Ellen Fetzer

Concept 05

Franciska Schüller

The green structure of Metzingen

05.00

GIS analysis
The goal of the GIS application in the context of identifying potential problems such as
• Where is the tourism potential located?
• Where is the scope of the area where one-day sight seeing trip can take place?

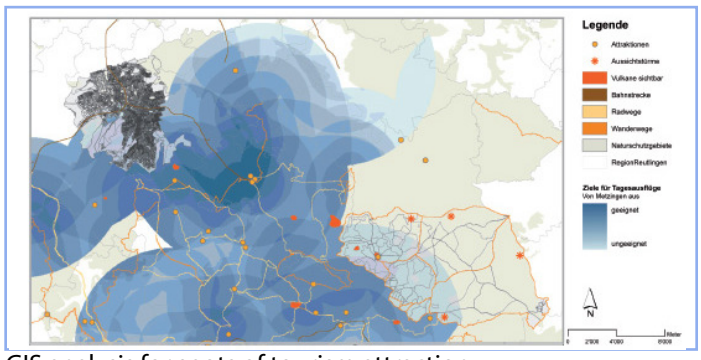
Aim

Metzinegen:
Forge the attractiveness of the city as a famous outlet city and other services like gastronomy, handicraft, local production, etc.
Make the city as a more-than-two=days staying point.

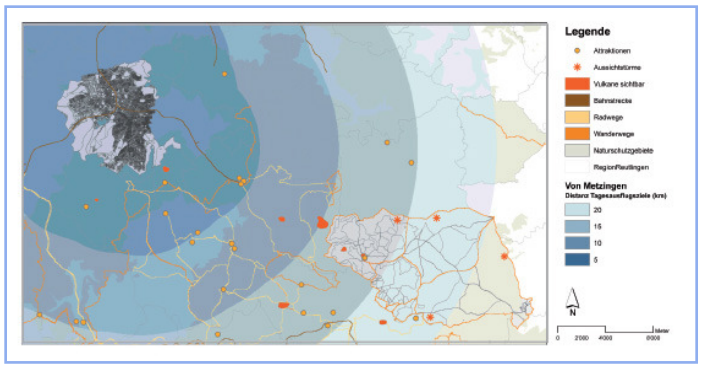
Münsingen
Establish a long-term funding and maintenance concept of protected areas and the old camping place. Stress the sustainable protection of nature and landscape. Strengthening the local food and Producers of local products.
Increased the awareness of nature conservation and local cultural landscape

Concept

The concept offers the shopping guest the possibility of cycling or walking in to landscape out of the town. It describes an interesting 100km long way from Metzingen to Münsingen through the natural attractions (area of protected environment, volcanism, viewing point, etc.) and recreational attractions (warm baths, local cultural heritage, etc.) of Swabian Alps that may



GIS analysis for spots of tourism attraction



GIS analysis for distance between Metzingen and münsingen

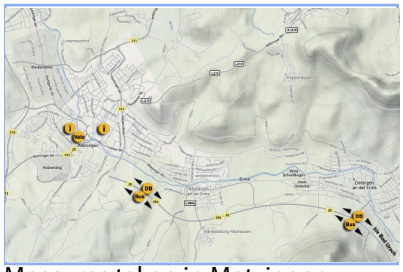
Franciska Schüller

The green structure of Metzingen

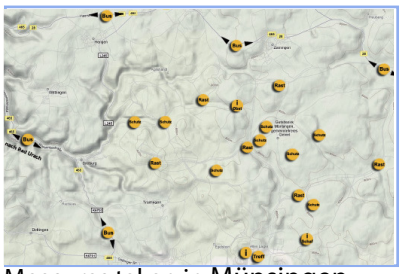
05.00

be reachable by foot or bike. The recreational way to landscape gives the shoppers an opportunity to have a longer walk after the visit in outlet-city or overnight in the town and have and cycling trip into the Swabian mountains later on. This last opportunity may be interesting especially for those who came from other parts of Germany or abroad and wish to explore the beauty of region and local specialties. Keeping visitors in the town may also help local craftworks and gastronomy.

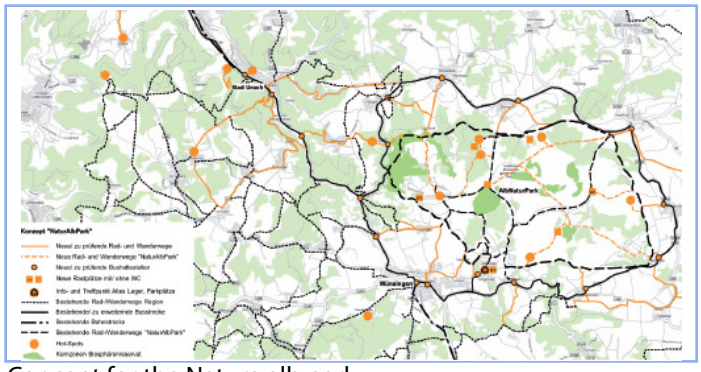
Opening a new tourist road into the Swabien Alps brings also advantages to remote areas. The target places of excursion as well as only passed by ones get a chance to develop their own tourism related businesses and improve the same local economy. The developed of tourism offers may be a sustainable key of success of this area- help to balance the economical and social differences between different area of BW and promote natural and cultural phenomena of the region.



Measures taken in Metzingen



Measures taken in Münsingen



Concept for the Nature alb park

Concept 06

Truppenübungsplatz Münsingen
Wild park

06.00

Concept 06

06.0

Title
Wilderpark in Truppenübung-splatz Münsingen

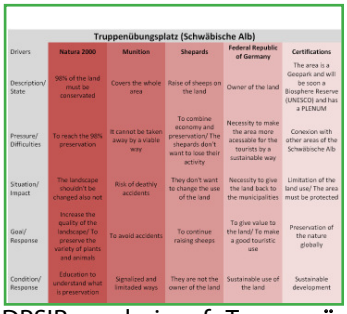
06.0

Introduction

How to reuse the former army training terrain located in remote area of Swabian Alps? What kind of useful function can get the area of military hazards? Can the post-military area have an educational and recreational utility? The answer for those questions tried to find Juliana Aschwanden-Vilaça, bachelor architect from Brazil. So called Truppenübungsplatz Münsingen is a former military training area 67 square kilometer large, located Baden-Württemberg, district Reutlingen. The years of military use of this area left there the recognizable marks in the form of tanks roads, military barracks with simple living facilities called Altes Lage and metal leftovers of trained explosions like shells, used ammunitions and likely misfires. The hazard of accidental explosion is minimal, however from safety reasons the public accessibility for this area is limited to appointed paths and cycling roads. So currently the area is used mostly by shapers to pasture the sheep. The buildings of the Altes Lage are partly used as administration of environmental organization or occasionally rented for temporary camps or scientific base.

Analysis

The former military Münsingen, with its approximately 67 km2 on the largest and most valuable natural area Swabian Albes.
Because of the military use for more than a hundred years, are approximately 4 Million munitions and ordnance remains on the site, containing heavy metals.
The evacuation of the entire area is not feasibible because of the high cost and the destruction of nature.
In this case the DPSIR analysis is implemented to evaluate the potential and problems of Truppenübungsplatz Besides, the facilities in Truppenübungsplatz, which was roughtly divided into road, military use facility and green structure are deliberated checked. The problem of these facilities are listed.



DPSIR analysis of **Truppenübungsplatz**

Analysis of facilities problem

Team / author	Münsingen	Juliana Aschwanden-Vilaça Brazil
Supervisers	Roman Lenz, Christian Küpfer, Ellen Fetzer	

Concept 06

Juliana Aschwanden
-Vilaça

Wilderpark in Truppen-übungsplatz Münsin-gen

06.00

Design

Road system

Three categories of road consist of the main road system.

• New Field path

The footpath running through the field, decorated with local vegetation.

• New hanging path

The wooden hanging path serves as connection between viewing tower. It could also successfully make visitors free of dangers hidden in the ground.

• New wild park road

A planed a ring road, where could offer the visitors a panorama of the wild park, is set. This ring road works also as a connection to the external road.

Former military-use-facility

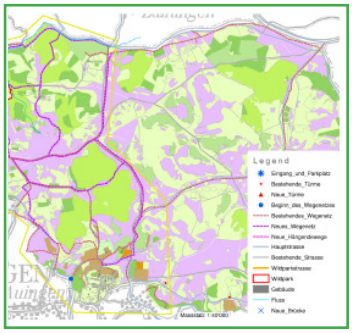
• Existing road

The existing road , previously used for military use, is about to renaturlized and reused as tourist attractions.

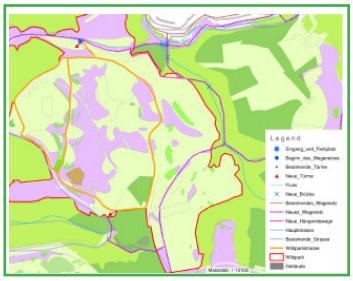
• Viewing tower

4 viewing towers, which formerly used for military surveillance
were. Today, the towers are used for observation. All 4 towers are located in the southern part of Truppenübungsplatz.
To further enhance the tourism in this area , two more towers are established for bird-watching, gastronomy.

Illustration of Hanging road



Road system



The location of the towers

Concept 06

Truppenübungsplatz
Münsingen
Wild park

06.00

Scenario

Three scenarios are run here to describe the possible perspective of the wild park.

• Maintaining scenario

The wild park maintains its territory and possession as the same as current situation

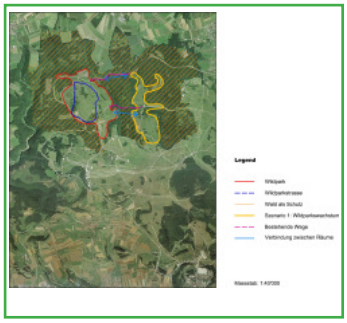
• Trend scenario

The scope of wild park proceed to the adjacent region, which is a possible progress in the near future

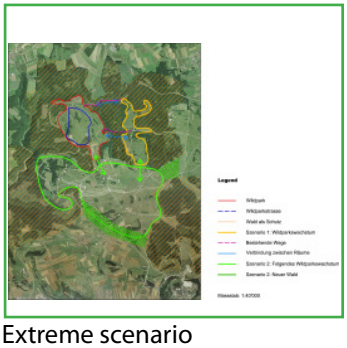
• Extreme scenaio (positive)

This scenario describe the possibilities, that wild park expand into maximal extent, with a size almost 4 times bigger than today

Maitaining scenario



Trend scenario



Extreme scenario

Masterstudiengang

Der Masterstudiengang IMLA wird gemeinsam von den drei Fachhochschulen Nürtingen (Deutschland), Fachhochschule für Technik Rapperswil (Schweiz) und Fachhochschule Weihenstephan (Deutschland) angeboten. Die inhaltlichen Schwerpunkte des Master Studienganges in Landschaftsarchitektur liegen in den Bereichen Management, Digitale Technologien und Planen in Europa. Das Studium ist modular aufgebaut.

Das Modul „Planning and Project Management" vermittelt im Rahmen eines Kurzprojekts theoretische Grundkenntnisse im Bereich Management und schlägt den Bogen zu Projekten in der Praxis: Wie organisiere ich das Projektteam? Wie kommuniziere ich in schwierigen Situationen? Wie erreiche ich mit den zur Verfügung stehenden Mitteln hohe Qualität?

Im Modul „Digital planning methods" wird ein breiter Einblick in die verschiedenen digitalen Werkzeuge, die Planerinnen und Planern heute zur Verfügung stehen, verschafft. Neben theoretischem Input und praktischem Training steht der Datenfluss zwischen den Programmen im Vordergrund.

Das Modul „Planning in Europe" behandelt die relevanten Handlungsfelder der Landschaftsarchitektur in Europa. Programme und Konzepte wie EUREK, URBAN, Leader+, Interreg und Natura 2000 werden analysiert. Vergleiche auf europäischer Ebene und Diskussion über unterschiedliche Planungssysteme eröffnen neue Berufsperspektiven.

Der Studiengang richtet sich an Fachleute aus den Bereichen Landschaftsplanung/Land- schaftsarchitektur sowie verwandter Disziplinen. Insgesamt sind sechs Studienmodule und eine Abschlussarbeit zu absolvieren. Die Präsenzzeit der Module ist jeweils auf vier Wochen beschränkt und ermöglicht ein berufsbegleitendes Studieren. Jede Fachhochschule bietet pro Semester ein Modul an; inhaltlich und zeitlich sind diese aufeinander abgestimmt. Das Präsenzstudium wird von E- learning- Einheiten ergänzt, die über einen Virtual Campus abgewickelt werden. In der Regel dauert der Studiengang sechs Semester – verkürzbar auf drei Semester und verlängerbar auf höchstens fünf Jahre. Derzeit befindet sich der IMLA in einer Umstrukturierung. Unter anderem soll das Modul „Planning and Design Methods" eingerichtet werden, in dem den Studierenden Methoden für das selbstständige, kreativ angemessene und lösungsorientierte Arbeiten in der Landschaftsplanung und Landschafts- architektur gelehrt wird. Voraussichtlich wird der IMLA ab Herbst 2005 auch im Vollzeit- studium absolviert werden können.

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