

Die approbierte Originalversion dieser Diplom-/  
Masterarbeit ist in der Hauptbibliothek der Tech-  
nischen Universität Wien aufgestellt und zugänglich.

<http://www.ub.tuwien.ac.at>



The approved original version of this diploma or  
master thesis is available at the main library of the  
Vienna University of Technology.

<http://www.ub.tuwien.ac.at/eng>



## MASTER THESIS

A conceptual approach to the integration of people based on  
architectural methods in special consideration of local resources and the  
principle of sustainability

**ausgeführt zum Zwecke der Erlangung des  
akademischen Grades  
eines Diplom-Ingenieurs / Diplom-Ingenieurin  
unter der Leitung**

**O.Univ.Prof. Dipl.-Ing. William Alsop**

E 253  
Institut für Architektur und Entwerfen

eingereicht an der Technischen Universität Wien  
Fakultät für Architektur und Raumplanung

Von  
Elisabeth Krammer  
0725969

Wien, am



*Eine Grenze kann nur etwas trennen, was grundsätzlich auch verbunden ist.*

-

*A border can only separate what originally belongs together.*

(Bös, 1997, P. 54, as summarized by Dvořák, Mückler, 2011)

Abstract - english

This thesis discusses the correlation between sustainability, integration and architecture respectively urban design.

Due to the increase of ecological and social problems such as biodiversity loss, poverty or social disparities, the concept intends to provide sustainable approaches in order to reduce negative consequences for society and environment. Hence, tending bias need to be reconsidered.

Accordingly, the Brundtland-report of the United Nations' of 1987 defines the term of sustainability as follows: *Humanity has the ability to make development sustainable - to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs* (Brundtland-Kommission (WCED), 1987, as summarised by Hardtke, Prehn, 2001, p.58).

Furthermore, globalisation induces an increasing international interrelation in all areas of life not at least due to a trend to ethnic and cultural heterogeneous formations worldwide (Mückler, n.d.).

The phenomenon of migration is one of the following consequences. It needs to receive attention as well as to be incorporated in current decisions and future plans.

According to the ethnologist Hermann Mückler (n.d.), who claims that it is necessary to provide inter- and multidisciplinary within migration research, this thesis concentrates on discussing mentioned issues under the aspects of architecture and urban planning. Hence, the concept intends to use available resources in order to meet sustainable values. Besides, the concept incorporates people of different generations respectively deals

with cross-cultural societies to meet consequences of migration developments.

The concept is demonstrated by its implementation into a vacant building complex with its adjacent land which belonged to the former orphanage Stephanie Stiftung. It is situated in the centre of a semi-rural village, called Biedermannsdorf, near Vienna. Due to high potentials in consideration of green space right in between the centre, the conceptual idea opens the site for public both in theoretical and practical considerations. Therefore, the urban structure around it as well as the site itself will be marginally modified. The former orphanage serves as a centre for educational aspects. In consideration of integrative concepts it provides facilities such as language classes for all ages.

Inhabitants' participation in terms of integration of people with migration background is encouraged due to appropriate conceptual approaches. Those are developed both in societal as well as architectural considerations.

The green concept which is developed together with an expert in urban farming and self supply, concentrates on existing natural resources. Therefore, the conceptual idea agrees with Mückler (n.d.) who refers to the term of glocalisation, the rediscovery of the potential of local resources and its capabilities by merging them with global aspects.

Furthermore, a new Cultural Community Centre with adequate functions is newly built within the site.

Abstract - deutsch

Diese Diplomarbeit behandelt sowohl die Zusammenhänge als auch die jeweils gegenseitigen Auswirkungen der Aspekte der Nachhaltigkeit, Integration, und Architektur beziehungsweise Stadtentwicklung.

Im Zuge von steigenden ökologischen und sozialen Problemstellungen wie beispielsweise Biodiversitätsverlust, Armut oder soziale Ungleichheiten, beschäftigt sich das Konzept mit der Entwicklung von nachhaltigen Lösungsansätzen, die negative Auswirkungen für die Gesellschaft sowie für die Umwelt reduzieren beziehungsweise verhindern sollen.

Demnach müssen die gegenwärtigen Trends in Richtung Zukunft überdacht werden.

Dementsprechend fasst der Brundlandt-Report der Vereinten Nationen von 1987 den Gedanken einer Notwendigkeit der Überarbeitung derzeitiger Entwicklungen wie folgt zusammen und appelliert an dessen Umsetzung: *Die Menschheit ist einer nachhaltigen Entwicklung fähig - sie kann gewährleisten, dass die Bedürfnisse der Gegenwart befriedigt werden, ohne die Möglichkeiten künftiger Generationen zur Befriedigung ihrer eigenen Bedürfnisse zu beeinträchtigen.* (Brundlandt-Kommission (WCED), 1987, zusammengefasst nach Hardtke, Prehn, 2001, S. 58).

Gemäß der Behauptung des Ethnologes Herрман Mückler (n.d.), induziert Globalisierung eine steigende internationale Verknüpfung betreffend alle Bereiche des Lebens. Dies resultiert seiner Meinung nach aus einem weltweiten Trend zu ethnisch und kulturell heterogenen Zusammenschlüssen.

Nachdem dieser darüber hinaus die Notwendigkeit einer Inter- und Mul-

tidisziplinarität innerhalb der Migrationsforschung postuliert, konzentriert sich diese Arbeit auf die Erörterung vorgangs erwähnter Themen unter architektonischen und städtebaulichen Gesichtspunkten.

Daher ist das Konzept auf die Nutzung vorhandener Ressourcen ausgerichtet, um nachhaltigen Werten gerecht werden zu können. Darüber hinaus werden Menschen aller Generationen sowie Kulturen miteinbezogen, nicht zuletzt deshalb, um sich nach den Konsequenzen von Migrationsentwicklungen zu richten.

Die Umsetzung des Konzepts wird anhand der Implementierung in einen leer stehenden Gebäudekomplex sowie seine angrenzenden Freibereiche dargestellt. Es handelt sich hier um das Grundstück und die darauf existierenden Räumlichkeiten des ehemaligen Kinderheimes der Stadt Wien Biedermannsdorf. Es befindet sich mitten im Zentrum der gleichnamigen Marktgemeinde, in der Nähe von Wien. In Folge des hohen infrastrukturellen Potenzials durch die Existenz eines relativ großen Grünraumes innerhalb des Dorfzentrums, befasst sich das Konzept mit der Öffnung des Grundstücks für die Allgemeinheit. Dadurch wird dieses sowie die umgebende urbane Struktur geringfügig an konzeptionelle Vorhaben angepasst.

Im ehemalige Kinderheim befinden sich gemäß seiner sozialen Funktion, die es seit jeher besitzt, Bildungseinrichtungen für alle Altersgruppen. Diese sind beispielsweise Sprachkurse, wie sie das integrative Konzept unter anderem vorsieht. Die Partizipation der Einwohner Biedermannsdorfs an der Integration von Menschen mit Migrationshintergrund wird

durch geeignete konzeptuelle Herangehensweisen unterstützt. Diese sind sowohl architektonische als auch städtebauliche Aktionen.

Das *grüne* Konzept, welches zusammen mit einem Experten auf dem Gebiet der nachhaltigen städtischen Kultivierung erarbeitet wurde, konzentriert sich auf bestehende natürliche Ressourcen.

Es stimmt daher überein mit Mücklers (n.d.) These einer *Glokalisierung*, welche die Wiederentdeckung von lokalen Ressourcen beschreibt und die daraus resultierenden Potenziale einer Korrelation derer mit globalen Aspekten.

Schließlich wird im Rahmen des Konzepts ein neues Kulturelles Gemeinschaftszentrum (englisch: Cultural Community Centre - CCC) entworfen, welches mit darauf abgestimmten Funktionen ausgestattet ist.





## Table of contents

Abstract	4
Foreword	12
1. My intentions or an introduction	14
2. Contemporary issues and their mutual interdependencies	16
3. In conversation with one of the first re-thinkers about integration concepts	24
4. The location	32
5. Concept	44
6. A conclusion	74
7. Bibliography	78
8. List of figures	82



## Foreword



former orphanage *Stephanie Stiftung* in Biedermannsdorf

The reason why I decided to concentrate at the former orphanage Stephanie-Stiftung in consideration of my thesis, comes from the following: Since the building is situated in Biedermannsdorf, the village I grew up, I nearly daily passed by this complex with its accompanying park. Thus, I somehow recognised the consequences for rural structures of the orphanage as a *foreign body* as already described by Stiglbauer (2004, p. 104). He claims that in its separateness, the building has been an independent part of Biedermannsdorf already since the nineteen twenties.

Consequently, due to the fact that it is vacant for approximately ten years, as an architectural student I quickly developed several visions of the site's reopening for public. In my opinion, the potential of the location, namely the former orphanage's location right in the centre of the village, needs to be accessible for all. Especially since it provides a huge recreation area within green space.

While migration society is growing within these days, the necessity of integrating those people becomes more and more important.

In consideration of just mentioned facts, I therefore considered this building complex as well as the green space as providing appropriate facilities for such an integrative usage.

Furthermore, it was important to me to concentrate on current issues and somehow express my sympathy with people who lost their homeland or even more.

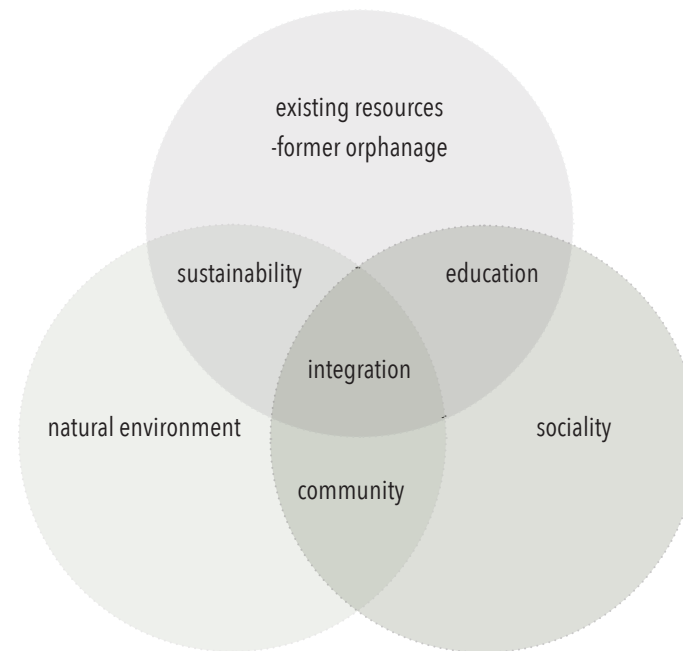
Another aspect which I wanted to incorporate into my concept, is sustainability. Due to climate change, modification in energy production and

consumption are getting forced. One of the main sectors consuming most is the building category. That leads to the fact that the architectural sector needs to deal with sustainable measures in consideration of designing and technical aspects.

Therefore, within my thesis, I concentrated on sustainable approaches in terms of a scale that comprises social, environmental and architectural considerations.

In the course of this foreword, I would like to take the opportunity to express some thanks. Without the love support of my parents, siblings, grandparents and my whole family, without my dear friends I wouldn't even have come thus far. I would like to thank Alexander for his patience and lovely constant encouragement.

# 1. My intentions or an introduction



This paper deals both with current societal challenges, namely the integration of people with migration background, and its application to physical structures. Those refer to the approaches in terms of architecture and urban development. Throughout the thesis, sustainability acts as a guide-system whether concerning human resources, environment or building technologies. In case of a limited scale provided in such a paper, latter one is not threatened to the full extent. Initially, research work concentrated on the correlation between sustainability, integration and architecture. In addition, each of those fields are further investigated independently. Furthermore, the thesis discusses educational structures within former times as they were in the orphanage Stephanie-Stiftung as well as in these days, after a reforming process took place. This happens due to a conversation between the author and a social pedagogue. In course of this discussion, the social education worker's pilot project in consideration of educational systems is introduced to the reader. Additionally, integrative concepts are developed due to the pedagogue's experience. Those as well, are adapted to the concept's designing principles. Since the architectural and urban approach refer to a certain scene, first steps were analysing the site's history and characteristics. Due to such a historic building complex respectively land, the author gives brief information about its past. Furthermore, infrastructural aspects of this location are discussed in consideration of people's access both physically and intellectually. The concept intends to develop open public space. Further, the thesis considers site's vegetation in former times and these days and

draws a comparison. Vegetative aspects will play an important role within the concept. Finally, the overall master plan is introduced to the reader. The author developed a so-called green concept together with a biologist who is expert of sustainable and urban farming. Additionally, he works in cooperation with people with migration background. His successful work with people of foreign cultures even more supports the concept's plan of applying integrative methods in a way the master plan intends to do. Therefore, conceptual approaches were defined in order to cultivate the land within the site, still in correlation with the social pedagogue's suggestions as well as the thesis' designing plan. Another part of the green concept refers to the park which is adjacent to the former orphanage. This area will take a special function in providing zones of encounter for all ages. To complete the conceptual approach, the author developed a building which is considered as the main design element of the concept. Since this thesis consists of two parts, the architectural draft takes up a large percentage besides the theoretical component. A so-called Cultural Community Centre (CCC) acts as a merging element within the master plan. It is strategically well situated in the middle of the site and therefore provides spatial functions which are contributing to the integrative aspect. Additionally, energy saving building technologies epitomize sustainable components of the Cultural Community Centre. Goal of this paper is the development of sustainable architectural respectively urban design which enables cross-generational integration and therefore demonstrates their ability of influencing societal structures.

2. Contemporary issues and their mutual interdependencies



## 2.1. Sustainability

In the 1980ties, the term of *sustainability* arose for the first time. Thanks to the The Brundtland Report of the United Nations, the phrase became popular and received global attention. The report is named by the former female president of the UN commission for environment and development Gro Harlem Brundtland (Hauff, 1987, as summarized by Grunwald, Kopfmüller, 2006).

Why was it important to draw the world's attention to it? In the second half of the 20th century, people got aware that resources are in fact limited and that pollution as a consequence of technical progress and economic growth causes a lot of problems for environment and human beings. Besides, global economical disparity between industrial and developing countries reached a critical level. In addition, this injustice is one of the main causes of the phenomenon of migration (Dvořák, Mückler, 2011), what will be further discussed later in this paper.

Researchers recognized that it was necessary to change the pursued directions of development of economic, environment and social issues as well as their interrelation to each other. This is confirmed by the following problems listed by the Brundtland commission: overexploitation of natural resources, growing inequality concerning distribution of income and wealth, increasing number of people living in absolute poverty as well as threat of peace and safety. This implies sustainability to create social

fairness, retain environment and afford institutional participation (Hauff, 1987, p.32, as summarized by Grunwald, Kopfmüller, 2006, p.24).

How can those aspects be realised? Sustainability brings the relationship between present and future into question whereby the value of this relation itself is decisive. A positive balance means a righteous dependency in which today's people act in a way that it meets the needs of the present without compromising the ability of future generations to meet their own needs (Hardtke, Prehn, 2001, p. 58). This concerns both sustainable intensity of consumption of resources and equitable distribution. According to Grunwald and Kopfmüller (2006) the Brundtland Report demands for more equity within the following fields: natural resources, prosperity, rights, duties, social and economical resources as well as possibilities of influence and voting. At the same time, they assert that unfairness in those issues is the primary cause of problems and conflicts. In other words, it is all about the retention of correlation between humans and nature.

Consequently, it is important to emphasize that sustainability is a continuous development, not a condition that can be reached by following kind of a recipe. This development depends on various complex coefficients which are subjects of steady change.

Today, almost 40 years after the Brundtland commission initialized the beginnings of a re-thinking, we are still struggling to internalize sustainability and a sustainable lifestyle in our everyday life. However, the topic of sustainability yet arrived in mass media and luckily came into fashion. We are the so-called *LOHAS-generation*, which describes the *generation*

*living the Lifestyle of Health and Sustainability* (MUNLV, 2010, p.40, as summarized by Grunwald, Kopfmüller, 2006, p.224).

*It is cool* to consume and live organic. This way of behaviour currently fulfils our needs, although those mentioned needs are attributed a luxurious character.

Nevertheless, sustainability correlates with human basic needs by claiming access to those for everyone in the same way: nourishment, access to clean drinking water, health and adequate housing. Same refers to equality of opportunities and fairness concerning environmental interests (Grunwald, Kopfmüller, 2006).

## 2.2. Of integration and boundaries

Integration is a word that has been heard quite often in recent months or even years. It is a powerful phrase, still very indistinct. Hardly anybody can give a straight and clearly defined definition of this phenomenon. Integration is a result of migration, which is in turn a consequence of the *world's fission, which itself is split in a sustainable way* (Waltz, 2000, p.78). This division arose from post-colonial structures, still influencing world's societies in economical growth and prosperity. It is important, mostly for developed countries, to understand and accept the fact that they themselves as well are perpetrators of the phenomenon of migration. And that it

is a matter of geological and geopolitical developments around the world, who will be affected after all. Migration is a result of western lifestyle, its impact on developing countries and vice versa. It culminates in flows of refugees into developed countries (Grundwald, Kopfmüller, 2006).

This implies our all responsibility to start living in a sustainable, fair way and simultaneously make every integrative process become reality.

Hochgerner for example, describes integration as a *societal process, not only as an individual effort of adaption* (Hochgerner, 2011, p. 167). What can be assumed so far is that every integrative action ends up in a development and change in both societies and individuals. People need to become aware of the necessity to change themselves or at least to allow themselves to adapt to new situations to make integration possible at all. Hochgerner (2011) continues this notion by claiming that the aim of integration is society's ability to change in a way that it can cope with new challenges under new conditions. The intention in every aspect is the improvement of its quality of living.

Additionally, according to Herczeg (2011), this social process proves to have no end. This could be understood under the premise that a process itself is endless. Furthermore, an integrative action justifies its attribute by being dependent on two participants: the integrative society on the one hand and the community which needs to be integrated on the other hand. Both societies are under steady development.

This phenomenon can be assumed as a chance. It provides the possibility to have the time to adapt to new situations while changing strategies if

necessary.

Integration is always a chance. Whether in respect of economical or social aspects. As reported by Mückler (2011), it is about a chance for exchange. Such an interchange caused by integration goes beyond a simple addition and leads to *something generative new* (Mückler, 2011, p. 205). Such an awareness leads us to the potential that implies integration of people into new societies.

After such considerations, which prove that integration is an enrichment for every community and culture, the author decided to give this phenomenon a leading part while developing the concept of this work.

Furthermore, some aspects will be highlighted which evince the advantageous facets of integration for architectural and urban development.

### 2.2.1 The phenomenon of integration as a conceptual approach

Integration needs a setting of operations, where the integrative process is able to unfold. This location is both urban space in all of its scales as well as social environments. Integration takes place in *centres of controversy* (Sen, 2000, p. 82), in zones of encounter and retreat. Whilst any environment provides a place for people to interact, both in harmony and disagree, people communicate and (inter-)cultural exchange takes place. This thesis' concept adapts the phenomenon of integration onto a rural surrounding and its inhabitants.

Whilst dealing with the integration of people into new conditions, the evaluation of location's potential is the logical consequence. Hence, this implies lots of advantages for societies considering urban development. According to Dangschat (2000), it could be advantageous not only for host societies to be rewarded in return to their willingness to include other communities, by improving public infrastructure. It also contributes to urban and economical developments when society cooperates. Considering this concept's idea, advantageous developments as mentioned above are implicit with sustainable aspects. Consequently, existing potentials in architectural and urban institutions get renewed, opened for public and equipped with new functions. The aim is to provide qualitative surroundings both for inhabitants as well as people with migration background.

Besides, a successful process of migration has the ability to stabilize sustainable structures in social communities (Sen, 2000).

Therefore, this thesis' design approach deals with the translation of those theoretical advantageous aspects of integration into an architectural, practical language considering one specific space.

## 2.3. Architecture, environment and urban planning - interdependency between sustainability, migration and integration



situation of the site - close by important public buildings

Reasonable architecture and urban planning directly depend on sustainable values. Consequently, intelligent planning means to design for present with future in mind. All decisions we come to, have to consider in all conscience wellbeing of human and nature now and then. Intelligent designing is about merging technical, economical, environmental, social and *cultural* aspects in consideration of people's needs.

Built space is powerful. On the other hand, it is often forgotten that the *negative form* is it as well. Both exert influence on people's patterns of behaviour, both can affect our everyday life in terms of togetherness or rather isolation.

Likewise, it is possible to design space in order to support people living in comfortable surroundings. In turn, a communal way of life is sustainable. Why? Community always correlates with urban space. A city is the distorted reflexion of society (Sallard, 2000). Many of behavioural patterns are readable in urban structures and the way as well as intensity people use certain places.

The city is focal point of various kinds of debates as Waltz (2000) postulates, no matter if they have positive or negative contents. Dvořák and Mückler (2011) even take the view that discussions or comparisons of various interests never have any negative effects. They are claiming, that it is all about communication – and this doesn't only happen in words. According to them, as long as there is any interaction within a community, the basis of a healthy structure of society is provided. Healthy in this case

means that everybody should have the possibility to live out his or her cultural, religious and basic personal values and belief systems.

This leads us to the correlation between sustainability and the phenomenon of integration in consideration of architectural aspects.

What have sustainable architecture respectively urban planning and integration in common? First of all, they depend on each other. Without appropriate architectural and urban design there is no integration possible. Vice versa, the former implies the latter. Not until integration is part of the designing concept, it won't be able to call itself sustainable.

Integration means change. We live in a transforming world, evoked by consequences of globalisation and, simultaneously one of those consequences, climate change.

Fortunately – and this is confirmed by Konvitz (2000) – an urban system gets enriched by any modifications. He claims that it is in the nature of things that cities are adaptable to modifications in particular and develop parallel to transformations. It is about action and reaction, growing by changing. This indicates that integration gives a positive effect on societal structures.

Therefore, an urban system literally *depends* on change. Hence, modification is the *raison d'être* of urban structures.

One fundamental factor why integration became – in this case – a decisive aspect in architectural and urban designing, is self-evidently, the phenomenon of migration. As mentioned before, essential for this paper is the correlation between sustainable architectural and urban planning,

integration and migration. Last-named mostly originates out of the problem of disparity. According to Waltz (2000), migration is the consequence of the world's division in consideration of sustainable resources. To stop migration which is caused by such disparities, the elimination of inequality respectively its transformation into fair distribution is needed. In logical consequence, this concept attributes the phenomenon of integration the ability to convert disparities caused by migration into value. Therefore, it supports integrative principles by architectural and urban designing methods.

These aspects lead us to the main issue of this paper: How to combine all those issues within one concept in order to enable the integration of migrants within a certain village.

First we need to understand the power of boundaries. There are several kinds of borders such as territorial or national ones as well as social and cultural borderlines. Bös (1997, as summarised by Dvořák and Mückler, 2011) excellently ascribes a border the ability to only being able to separate elements which belong together originally. This confirms the assumption that a boundary is quite diffuse, starting and endpoint are not exactly determinable. This understanding, in turn, reinforces that the process of integration itself is possible and makes sense. This is confirmed by Hochgerner's (2011) statement that any differences on one side of the border and on the other side are hardly discernible in fact.

Thus, the concept of this work intends to break up those boundaries both in a territorial and social way.



- 
- 
3. In conversation with one of the first re-thinkers about integration concepts





illustration of the conceptual approach - inner court of the former orphanage

In course of research work for this paper, the author had a conversation with Elisabeth Ringer (2015), a social pedagogue, about the integration of migrants and young people with migration background in particular. Since the phenomenon of migration respectively integration is of particular interest for the issue of this paper, it is mentioned that Ringer (2015) was one of the first persons in Austria testing a new educational method of supervising as described in the following.

### 3.1. Living community *Cranachstraße* from 1974-1985

This concept's educational guideline dates back to the nineteen-seventies and -eighties. According to Ringer (2015), it was worked out due to a further development of the conventional educational approach. Latter indicates the traditional way of supervision. This means, that few educators look after several primarily young people. Psychologists and welfare workers say that paying attention to every child to the same extent hardly is hardly possible in such an educational system. Thus, a reversal took place which already began in the nineteen seventies. In 1995, the reform process resulted in the closure of bigger protectories and children's placement in such homes was a thing of the past (derStandard.at,

2011).

As one of the first people who put those insights in practice, Ringer (2015) initialised together with her husband, who had his Doctors in Psychology, a new program of educational care in Innsbruck, Austria. It concentrated on the cohabitation of social workers with young people of socially indigent backgrounds within one apartment. Thus, familiar surroundings were created. Additionally, the young person's feelings of security and well-being were significantly improved. They received the attention they needed for personal development while capacities of educators were not overtaxed in comparison to some circumstances in big protectories. Besides, social interaction and getting into contact with environment was more bearable within such preconditions.

Ringer (2015), her husband and one other social pedagogue rotationally lived together with young boys at the age of fourteen to nineteen years. Three social workers and one cook took care of the teenagers twenty-four hours a day, seven days a week. The pilot project *Cranachstraße* took place from 1974 to 1985.

What today seems to be a common method in terms of education and care, was quite an experiment at that point in time. Nevertheless, the exceptional success of this program needs to get emphasised as well as recorded that the reversal definitely was worthwhile for the children's good. After leaving the commune, all young people who participated in this program managed to live an autonomous and confident life.

### 3.2. Conceptual approaches to the integration of people with migration background

So, positive effects on human health conditions by putting the main emphasis on social interaction in terms of integrating young people into society got ascertained. In consequence of this insight, Ringer (2015) advocates a similar conceptual approach as she applied to the project *Cranachstraße* to the integration of people with migration background.

According to her, it is important for young people to develop their own individuality. As a logical consequence, isolated facilities obstruct such a progress. Thus, the architectural concept takes up this theory in terms of designing institutions which actively open to public. Such an approach in terms of architecture and urban planning is inasmuch important as its spatial design directly influences people's dealing with each other as further discussed in another chapter. Appropriate in- and outdoor facilities benefit social interactions and therefore allow communal integration. Still, extroverted as well as introverted space needs to be provided at the same extent.

Furthermore, for a society it is significant to encourage people's engagement in consideration of social interaction. Why? Because society benefits from social outputs. In this regard, Ringer (2015) concurs with the following: It is not only in the economic sector in which some fields that require sort of restructuring, make profit from migrants' integration into

job market (Konvitz, 2000). Waltz (2000) for example argues, that especially human values, such as respecting elder or differently minded people, contribute to a healthy society.

Likewise, of fundamental importance for a sustainable society is the different weighting of people's interaction with environment in accordance with respective religious confessions. Since the Koran postulates nature to be a gift of god's, the Judaeo-Christians feel themselves to be in supremacy position compared with environment (Grunwald, Kopfmüller, 2006).

Besides, Krummacher (2000) argues, that such social interactions provide a basis for reduction of competitions resulting from such different values and beliefs of diverse cultures. According to him, integration of migrants causes societal gain in stability.

Thus, Ringer (2015) points at societal respectively migrant's human resources, whose values need to get encouraged and implemented into general public.

Furthermore, she points out some examples of practical conversion of integration. Since such kinds of social transformation require adequate infrastructural installations, this concept's reasonableness and importance once more gets reaffirmed.

One of many efficient ways to encourage social encounters are, according to Ringer (2015), establishments where interaction is conjoined with their function such as gastronomical institutions. Two kinds of such establishments are elucidated in the following.

### 3.2.1 Repair-cafes

According to the website of Stichting Repair Café (2015), so-called localities' concepts are based on the approach to seize people's knowledge, experience and technical curiosity as well. By this kind of theoretical access, it is possible to carry out Ringer's (2015) idea of an exploitation of human resources.

Such institutions provide the spatial framework parameters for mutual support in terms of society's abilities and requirements. Such efforts could be for instance technical or other mechanical skills. People bring their broken items in order to repair them by the help of expertly women and men. Service in return is either to assist in one's own professional range. Or people provide reward in the form of a little payment.

Within repair cafes, rooms for machines and tools are provided. This paper's concept furthermore installs appropriate spatialities which are required for a common café's establishment.

Therefore, Ringer's (2015) suggestion to incorporate such facilities creating a proper setting into the overall concept was added to the master plan.

Thus, both inhabitants and migrants are involved to the same extent by offering their knowledge. By following this theory, both sides can benefit from each other equally what contributes to a healthy society. As Garson (2000) postulates as well, social participation helps combatting societal exclusion.

Besides those mentioned aspects, the concept of a repair café faces up to the problem of throwaway society. Current trends demonstrate society's tendencies to rather quick throw away things that are broken or not needed any more. Thus, piles of rubbish emerge both on land and water, with escalating negative consequences for environment. Air pollution starts impairing everyday life, not to mention it's impact on nature.

By repairing more of our items instead of throwing them away, energy consumption both for production as well as waste disposal isn't even necessary any more. Saving energy is one of the leading principles of sustainability.

### 3.2.2 Literature-cafes

Even though not incorporated in this thesis' concept, Ringer (2015) presented another interactive establishment. Literature-cafes underlie a similar concept as repair-cafes, though with focus on linguistic aspects. Hence, the medium of literature acts as an intermediary in order to facilitate social interchange. Hereby, spatial circumstances are of prime importance. According to Ringer (2015), such unconventional, unbent atmospheres like they are in cafés, encourage people's willingness to open up to foreign, unknown situations.

Furthermore, positive effects on social interaction through literature-cafes are substantiated by direct access to language. People are getting in touch

with the one of their host society much easier what helps to participate in local institutions (Garson, 2000).

It is a matter of common knowledge that language is one of the main factors which makes integration possible. Namely, it is necessary to facilitate the exchange of information within societies as well as communication in general (Dvořák, Mückler, 2011).

Attending literature- or respectively reading-cafes helps people to get into conversation. Thus, it enables them to get in touch with the language of their host society in an unconventional and unforced way.

Another factor demonstrating such establishment's positive impact on society and therefore confirming Ringer's (2015) these is the aspect of emotions. Already Grundwald and Kopfmüller (2006) discuss the fact that emotions can influence people in an exceptionally efficient way. Consequently, of all things provide books an extraordinary emotion-based access to society itself.

### 3.2.3 Gamification and other educational approaches

According to Springer Gabler (2015), the term gamification describes how a playful way of learning contributes to people's motivation in consideration of further upskilling. Ringer (2015) also suggests to use such approaches in order to raise people's awareness of sustainable values as it is the pursued goal of this overall concept.

Consequently, she advocates the installation of a so-called parkour of senses which acts as an educational trail. Along that parkour, several stations are situated. Each of them provides either information about certain sustainable aspects. Or gives people the possibility of touching natural surfaces, whether concerning edible plants or not or other natural materials. Thus, young people in particular get the chance to experience something new in a sensual way, whereby emotions are aroused. As mentioned before, emotional feelings directly influence people's consciousness what furthermore improves their retentiveness. This is even encouraged by getting in touch with nature due to some sportive activities. Besides those aspect's abilities of improving health, as Ringer (2015) claims, they also contribute to an intact environment thanks to proper handling. Further, the sensual parkour's exceptional impact on children has to be mentioned. According to Ringer (2015), such educational measures improve young people's sense of responsibility towards environment. Thus, they are developing feelings of pride or success in consequence of that awareness.

She also postulates the importance of the installation of appropriate areas for all ages in public space, most of all for younger people.

Since playgrounds anyway are an important component in consideration of landscape planning, one is incorporated in this project's master plan as well. Additionally, Ringer (2015) points out children's special relation to the ground. The younger and smaller a child is, the more intensively is its reliance. That again accentuates the significance of sensual experien-

ces for their personal development as they are provided in a parkour of senses. Experiencing natural materials in particular, even reinforces that kind of effect.

Consequently, a positive impact on society in consideration of sustainable dealing with environment is further ensured.

In terms of contributing to a healthy community what is essential for a sustainable development, children's special needs have to be considered.

Most of all, the concept's approach of educating young people in terms of unbiased societal contact with migrants is of prior significance.

To do justice to future-generation, spatial freedom for their development is provided within this concept. Latter one indicates space of retreat in addition to zones of encounter. Locations with such characters are therefore installed near the former orphanage. Thus, a huge area within the park is provided, adaptable by young people to their current needs. In addition, the the playground which acts as a place of encounter whether concerning inhabitants of migrants, appropriate areas for children's needs are provided. Situated in the western part of the park, they ensure forming space which only is reserved for childlike functions.  
functions.



#### 4. The location

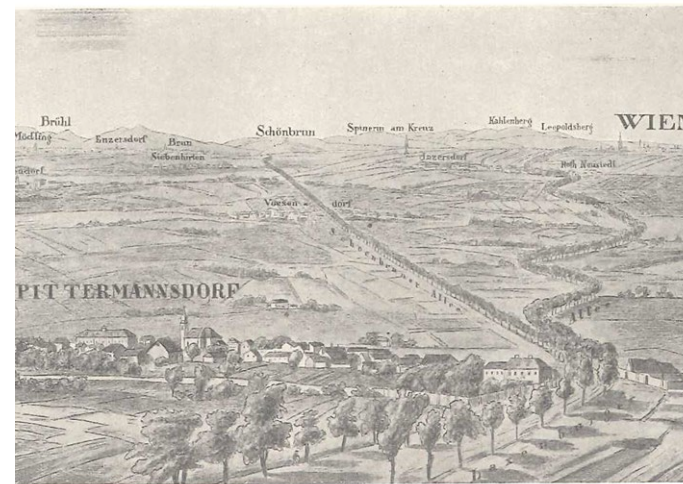
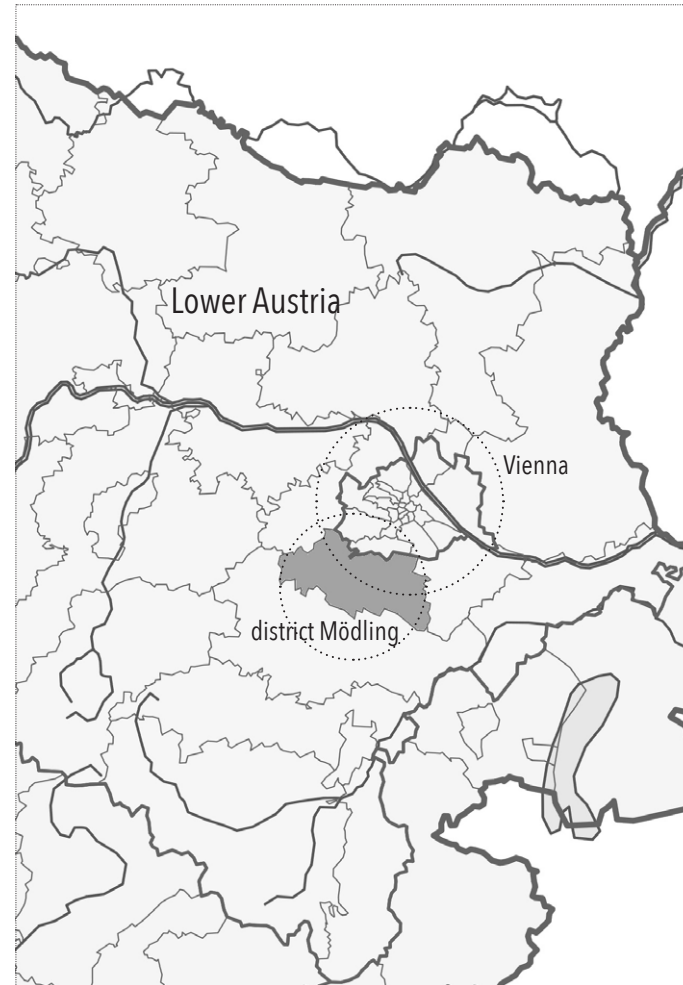


fig. 1 an old illustration of Biedermannsdorf





location of Austria



location of districts

## 4.1. Biedermannsdorf

Biedermannsdorf is a municipality in the South-East of Lower Austria, which is located in the East of Austria, adjacent to the southeast of Vienna. It is proved that people have lived in this area already long time ago. There were not only discovered archaeological finds, which go back to the Romans, more precisely to the fourth century Anno Domini. Even finds from the Stone Age, which means about four thousand years before Christ, were discovered on the east side of the village (Stiglbauer, 2004).

According to Strahammer (1924) this place was first proved by documentary evidence hundreds of years later in the thirteenth century: eleventh of April, 1275. At that time, it was called *Zohensundorf* and later in the thirteenth century *Pidermannsdorf* (Augustin, 1980). Strahammer (1924) mentions even more names of the village within time such as *Pydermanstorf* (1576), *Pittermansdorff* (1727) or *Bittermannsdorf* (1800).

There are some old buildings in Biedermannsdorf of which a lot were built in the eighteenth century or rest on ancient foundations. They are again proving the village's history-charged existence. Some of those ancient houses are, for example, the *Wasenhof* (fourteenth century), the *Perlshof* (seventeenth century), the *Rohrhof* (fifteenth century) or the alehouse *Wildenauer* (eighteenth century) as well as the residential house in the Wienerstraße, number two (eighteenth century) (Augustin, 1980). In 1817, Emperor Francis I. disposed one of the most important carto-



fig. 2 aerial photograph of Biedermannsdorf



fig. 3 and fig. 4 illustration of the *Sträßendorf* Biedermannsdorf

graphical chronicles (Messner, 1972-1977, as summarised by Stiglbauer, 2004) to which contemporary rural basic structure of zoning is attributed to.

That leads us to the fact, as stated by Strahammer (1924), that Biedermannsdorf is a so-called *Sträßendorf*. Consequently, houses are arranged along one straight street, turning their gables towards it. He explains that fact had a simple reason: In the first half of the nineteenth century, there were lots of robberies in Austria's border region to Hungary. Hence, a village with only two entrances was easier to defend from crime.

Strahammer (1924) also outlines the development of the typical farmhouse-architecture from that time which still can be seen in Biedermanns-

dorf within these days. Additionally, that kind of architectural design has strong influence on the Cultural Community Centre's draft as further elucidated in another chapter.

When the village was built, the houses were separated from the street by fences. Only later in time, it was replaced by a solid, lateral-situated tract with a gateway in between. In some cases – due to the Hungarian impact – the latter retrogressed backwards.

Next to the gate, either aligning on the building's edge or not, a tract with several windows replaced a small garden. This happened in the time after the *Congress of Vienna* took place in 1815. The author's latter annotation refers to one of the concept's leading issues, namely dissolution

of boundaries. During this congress Europe's frontiers were drawn new (Strahammer, 1924).

The typical form of the *Frankish farmstead* as illustrated by Stiglbauer (2004), will be discussed later in this paper in course of consideration of the concept. According to him, this kind of building can be found quite often in Biedermannsdorf.

Population today averages three thousand inhabitants, while the area of the village is covering approximately nine square kilometres (SGE Grosz StadtausstellungsGmbH, n.d.).

Biedermannsdorf is located south of a village called Laxenburg. Stiglbauer (2004) assumes, that latter had somehow an influence on the prominence of Biedermannsdorf. That is, because Laxenburg was the imperial summer residence, respectively secondary residence of the emperor's family (Hafner-Düringer, Mastny, Springer, 2010). It furthermore becomes apparent as the Archduchess Stephanie – according to Stiglbauer (2004, p.98) came from Laxenburg to Biedermannsdorf to visit one of its two welfare institutions, namely the *new Stephaneum*. The second charity institution is the former Kinderheim which is one of the primary issues of this thesis.

## 4.2. The former orphanage *Stephanie-Stiftung* or a home for children in distress

The *community home of the city of Vienna* (German: *Erziehungsheim der Stadt Wien*) has quite a long history.

In the fifteenth century, the building was named *Wasenhof*, designated by the family of Waser, as Augustin (1980) assumes. According to him, the building and its property back then measured about fifteen acres.

In former times, Biedermannsdorf was a territorial city in the possession of the then local ruler. Within time, in 1734, the archdiocese came to buy the village whereby it became an autonomous dominion (Strahammer, 1924). In 1739, in the possession of Cardinal Archbishop Count of Kolonitsch, the castellated building got reconstructed in the Baroque style. Still, its foundations date back to the fourteenth century.

Correspondent to Augustin (1980), in the fifteenth and sixteenth century the property got extended by adapting adjacent land. In 1880, a charitable organisation was founded by marshal Othmar Helferstorffer which concentrated on providing asylum for disabled children. Crown princess Stephanie from Belgium inherited the protectory. Thanks to a donation of Doctor Richard Ritter von Drasche Wartinberg in 1883 (Stiglbauer, 2004), the Wasenhof in Biedermannsdorf became the Stefanie-Stiftung even though municipal first refused children's accommodation in terms of supposed embarrassment. In this time, the property already consisted of the

manor house, the castle garden and almost three and a half hectares of agricultural land. Back then, it was one of the only addresses in Biedermannsdorf which cultivated food in fields (Strahammer, 1924). According to Augustin (1980), the asylum opened on November twenty-eight in 1883, in the presence of Emperor Francis Joseph as well as Archduke Rudolph and his wife Archduchess Stephanie. The orphanage named Stefanie-Stiftung closed down in 2005 (Wikimedia Foundation Inc., 2015) and is vacant since then. As inferred from derStandard.at (2011), it can be assumed that the traditional way of educating was overtaken by modern methods, as indicated by Ringer's (2015) pilot project of the *Cranachstraße*. Due to reforming processes such as *home*



fig. 5 illustration on the left: Archduchess Stephanie and Archduke Rudolph



fig. 6 von Hye-Chlunek, chairman of the former orphanage, with his pupils  
fig. 7 illustration on the right: former Wasenhof in the center of the village

2000 (derStandard.at, 2011) most children's homes were closed.

In order to pay respect to this building's social function, it had been dedicated to ever since, this thesis' concept again provides the former orphanage with purposes referring to a healthier society, as explained in the following.

### 4.3. The site and its potentials

#### 4.3.1 The infrastructural potential

As mentioned in a former chapter, this project's location is well-situated right in the centre of the village *Biedermannsdorf*, approximately seventeen kilometres away from the city of Vienna.

The place has a good transport connection, not only by car but also by public transport. Buses are driving directly through Biedermannsdorf and to nearby villages, where you can continue your journey by trains and trams. The site, which the concept refers to, is well-situated right in the centre of the village, with its front entrance along the main street.

The location itself is divided into two parts: One can say it consists of the original and the new part. First mentioned is the location of the former orphanage of Biedermannsdorf and its adjacent land; Latter one means

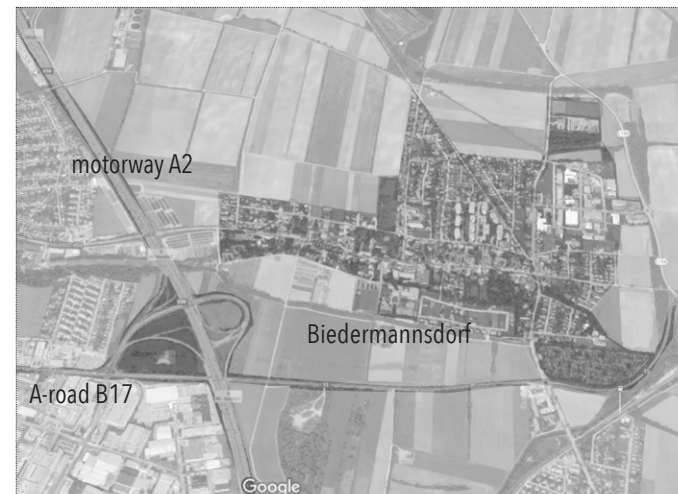


illustration above: location of Biedermannsdorf

illustration below: 5 traffic connection



the site - a green island in rural surroundings

the site where the new Cultural Community Center is situated. That part of the location was farmland and pasture in former times.

Both the church as well as the town hall are located straight next to the southern, elongated part of the site. Towards each of the narrow sides of the ground are placed two schools: An elementary school next to a kindergarten in the south, and a high school in the northeast. It has its focus on gastronomical studies among others. Latter annotation's relevance will be discussed later in this paper.

The former orphanage, called the *Kinderheim*, was – in consideration of fulfilment of its functions of the time when it was built in the eighteenth century – fenced and spatially *isolated* from public access. However, likewise to all research work in preparation for architectural designing, the potential of the site itself has been investigated precisely.

In accordance with the idea of the concept, this location's *potential* is highly esteemed. Why?

With social issues in mind, the conceptual topic deals with the complex process of integration especially of migrants. Integration itself, however, depends on social interaction on every layer. The fact that the site is located in an area where there is potentially a high frequency of human movement, supports achieving the concept's aim in an essential way.

The former *Kinderheim* is split into two parts: One is – as mentioned above – the building complex of the former community home with an adjacent park. The other one is a natural, extensive green area where there are planted fruit-bearing trees and where once a petting zoo was located.

Those two parts are *separated* from each other by a street leading from the west to the north, even though not heavily trafficked. This circumstance may be considered as a disadvantage at the first moment. But it is not. The reason is quite simple: As mentioned before, the concept is based on the interaction of people. By opening all fences and thus, all boundaries, and by combining those two parts by a path lying orthogonal to the street (meaning from the south to the north), people's frequency could be even stimulated considering the road crossing this footway. The more this access is used automatically when moving through the village, the more it encourages social interacting.

The more natural access there is the better it is.

Furthermore, the concept plans another entrance at the eastern side where the church and the town hall are located. The church itself commonly is in the centre of the village located (Stiglbauer, 2004).

It is a matter of common knowledge that it is a point of interest, a place of assembly. Thus, this entrance is set where we have another much frequented area. Here it is appropriate to bring the concept's importance of human interaction to mind. This leads us to the third entrance which is considered as the main entrance to the site. It is located in the south of the property, where the starting point of the path is leading to the north as mentioned before. This entrance is the original one to the park of the former *Kinderheim*. Considering the fact that the foundation walls were built in the baroque period in the early eighteenth-century (Stiglbauer, 2004) it is obvious that it is quite a monumental entrance. Well, this aspect is



thoroughly positive with the meaning of the concept. Further on, there is another reason why the main entrance is located at a strategically advantageous point. Following the road from the elementary school to the main street, it leads exactly to the front door of the park's main entrance. By continuing this direction, it ends up straight at the Cultural Community Centre. The fact that the major pathway to elementary school and kindergarten actually is the *extension* of the path leading through the site, provides the chance to link the *new village centre* – or at least an enlargement of it – with a frequently used road. It is quite essential for carrying out the concept to *open* the site especially for children. Since they play the part of one of the main target groups, their involvement is indispensable for accomplishing the process of integration. Of course,

the concept does not only set the focus on the infrastructural involvement but also on social interaction. This can be seen by the different institutions with different functions – partly specially geared ones to children –, provided within the site. The reason why young people in particular are that important for the process of integration will be discussed more detailed in another chapter.

The question of the importance of the infrastructural linkage has now been elaborated. Another relevant aspect in consideration of the location is the park within the site.

#### 4.3.2 The environmental potential

It is quite rare to find such a huge green recreation area right in between a



Josef Bauer Straße, connecting the southern and northern part of the site

village's centre. Urban green space is of particular importance. It provides room both for social interaction and initiating of contacts as well as recreation. It serves as a place for activities such as sports and is relevant for an intact urban environment. Diverse installations and equipment enable people to utilize and adapt to open space.

The organisation of recreational areas implies the arrangement of different zones. It has to be noticed, that the several sectors do not have to be thoroughly organized. People automatically adapt free space appropriate to their current needs. Since there are different kinds of groups using such green space at the same time, it is advantageous to forestall potential conflicts.

The size of the site's park approximately amounts to 15.000 square meters. The green area in the northern part even totals up to about 21.600 square meters. This unit is adjoining in its northern and western side fields, which supports an undisturbed cultivation of food.

#### 4.3.2.1. Natural vegetation within the site – nowadays

Vegetation at the location is quite abundant. It ranges from coniferous species to leaf trees.

Within the northern area are a lot of fruit-bearing trees, for example apple or cherry trees. Also walnut and pear trees are located in this part of the site. Elder, rose hip and lilac are lining the edge area. In the very south of the northern part, pine trees and dog roses can be found. This area has been ever since the existence of the Wasenhof or later Stephanie Stiftung

a land suitable for cultivation of fruit trees.

In the southern part of the concept's site are primarily pine trees, among others scots pine and occasionally birches. Ash trees and chestnut stand near the main entrance. Furthermore, there are plenty of mallows, maple trees, oaks and ashes. Climbing plants like rose hip as well as acacia or elder are planted in the northern part of the former park.

#### 4.3.2.2. Natural vegetation within the site – in former times

According to Strahammer (1924) some of those plants mentioned above are quite a typical kind of vegetation in Biedermannsdorf. Whilst apple and mostly damson trees were common in this area, walnut and mulberry were the rarer ones. Due to the lime-deficient soil, not many of apricot or peach trees can be found. Strahammer (1924) also narrates, that – interestingly enough – the former Stephanie Stiftung was the only property in Biedermannsdorf which cultivated vegetables for personal consumption on a bigger scale. In the beginning of the twentieth century, most vegetables cultivated were butterhead lettuce, cabbage, onion or garlic. Most common herbs which could be found were chives or parsley. Still, most frequent kinds of vegetables were potatoes, corn, poppy or even tobacco. Even apiculture was considered as desirable in times of around nineteen hundred.



western part of the former orphanage's park

## 5. Concept



three-dimensional illustration of the CCC - Southeastern view

## 5.1. The master plan – integrative architectural and urban approaches in terms of sustainability

In former times, when the building in the *Ortsstraße* 56-58 in Biedermannsdorf had the function of an orphanage, the property was separated from public by a high enclosure.

The master plan intends to open this area in the centre of the village for the community. Therefore, the conceptual idea goes even further and literally drags people into the site in order to experience landscape and architectural structuring. This ensues by generating an appealing leading path through the site, whereby additional side entrances ensure the thwarting of the whole area.

The general zoning of the land is oriented towards different kinds of functions. The main path leads through the locality and combines the two parts of the site, which means, that a street divides the land contentual into a southern and a northern part. This can be seen in the position plan. Consequently, the path guides people from the main street in the south to the natural wild area in the northern part.

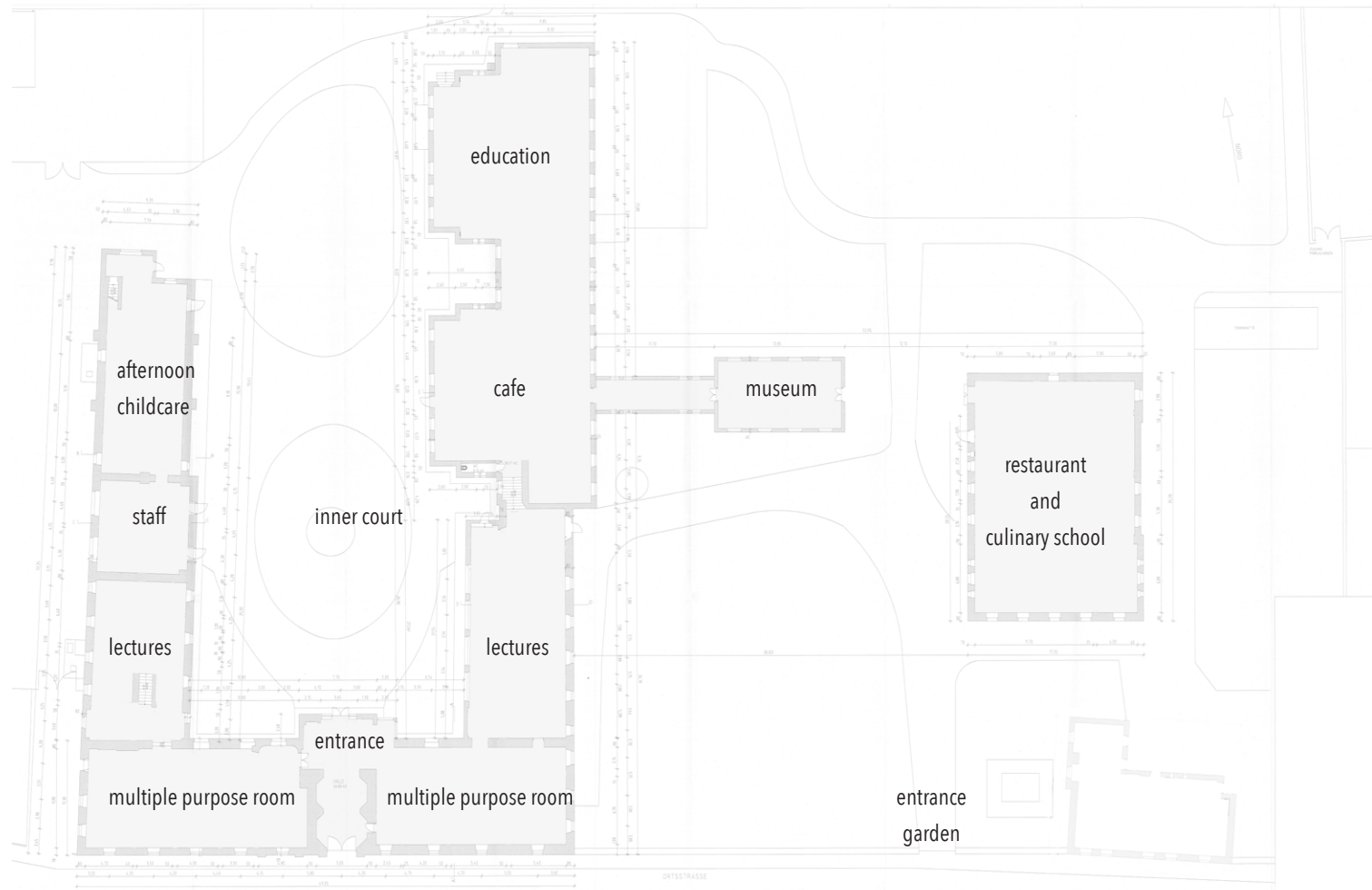
Along this pathway several conceptual hotspots are located.

### 5.1.1 Hotspot number one – The new purpose of the former orphanage

The building complex at the main street, which was introduced as the former orphanage and to which the park and huge green area in the north since then was belonging to, will keep its social and educational issues. It serves as a centre not only for educational aspects. Those are for example language classes for all ages. The concept intends to provide room for migrants to learn their host language – in this case the German language. It is a basic principle of integration that people who enter new cultures only can get integrated into those by speaking their language. Furthermore, the conceptual approach considers and incorporates the fact that people in different ages have different ways of learning.

Another aspect is the one of tutoring. Since researches at the longest proved that pressure in educational institutions is increasing, evermore young people feel the urge to get additional help in terms of learning. At this point it has to be mentioned that the general educational system may be in the need of revision. Hence, the phenomenon mentioned before could be seen as a logical consequence of this insight.

However, this is not the only decision-making factor in this concept in order to evaluate the appropriate functions for the former orphanage. Thus, another prior aspect is the fact that young migrants who are just learning the language of their host society, may not be able to gather all learning material at once. Therefore, it is the concept's intention to provide space



ground plan of the former orphanage with new functions

where those children and young adults can study in *peace* in order not to be left behind.

The third aspect on which this project is focussing on, is after school care. Within every society there are institutions needed, where young people can be supervised in case their legal guardians are not able to do so.

One automatic side effect is that integration can happen in this way. Especially young people normally enjoy contact with other children. Generally, they are not rating each other in terms of origins and background. Therefore, growing society is given the chance to form a new, open-minded and integrative community.

To stay flexible in its general spatial functions and be able to provide room for several kinds of functions, the building is equipped with rooms which are mostly separated by modular wall units.

### 5.1.2 Hotspot number two – a restaurant now and then

The next hotspot is located in an existing building along the main path, same as the educational institutions. It has the prior function of a restaurant. The original function of the house in former times has also been a gastronomical one.

For now, the concept plans to provide both eating space as well as rooms for gastronomical education. It intends to create a place where locals can enjoy regional products – partly even *home-cultivated* thanks to the

*green* concept which will be elucidated later in this paper. The restaurant has dining areas both inside and outdoors. The concept uses the unique ancient atmosphere within this site and therefore creates an appropriate setting. The outdoor dining area is orientated towards the huge park with its strolling path, little pond and age-old trees.

The idea is to make people of all ages aware of self-sufficiency, resources in terms of food and sustainability in food-production and consuming in general.

That is emphasized by the fact, that there are raised herb beds adjoining the building in the east. They are accessible for visitors in order to illustrate the concept's idea.

Besides, the fact that there is a high school nearby which has its focus on touristic and gastronomical studies among others, has been mentioned before. The building should provide room for school-educational reasons as well, such as room for practising.

### 5.1.3 Hotspot number three – a green island

The path continues leading from the restaurant through the park. As mentioned earlier, latter one belonged to the building-complex ever since. It is a huge recreation area in the middle of the village, providing lots of potentials. The *green* concept will be dealing with this park's vegetation in particular later in this work.





main entrance to the green park right in between the village's center

Consequently, the concept plans to open the park to public in contrast to the former urban context. The creation of public recreational space, puts people into the position to get into contact with each other and most of all with migrants. This is more likely to happen, since the concept arranges institutions especially for inhabitants of this village *and* for people with migration background. Thus, one aspect of the conceptual idea of integration by architectural and urban approaches comes into being.

A public park only then fulfils its function, when there are areas provided for all ages. Hence, the concept intends to install a playground for children as well. That is located near the rooms in the former orphanage which are designated to accommodate young people. Still, it is accessible both for public and for pupils what contributes to social interaction.

In addition to the main path, there are also some smaller ways leading through the park. They combine several hotspots within the recreation area, guide visitors around the pond and lead them to the last but not least hotspot.

#### 5.1.4 Hotspot number four – Space for physical exercise

Another strategic point is an area where there are two paved fields in order to be used for any kinds of sports. Same as the other hotspots are they located just next to the main path.

The two areas are not determining any special exercises to give multiple purposes of usage. Along them are two tribunes installed. In case of any

sportive or other events taking place outdoors, the concept suggests a possible venue.

Further on, the path is leading to the northern part of the site where the Cultural Community Centre and the gardens are located.

## 5.2. The *green* concept

The thesis' green concept chooses a very sensitive way of dealing with the existing potential of the site. Together with Johannes Kleedorfer (2015), a pioneer in urban farming and self supply in co-working with refugees, the author developed an ecological concept especially for this plot of land under the concept's requirements.

It starts with an appropriate partitioning of farmland, concentrating on the northern part of the site which measures approximately 20.000 square metres.

In accordance with Kleedorfer's suggestion, the farmland is divided into fields for cultivation and a wild area.

Former one is subdivided into farmland for vegetables, berries, ancient varieties of grain and (young) fruit trees. Latter one is separated into land for beehives, butterfly meadows or special habitats for wildlife. Additionally, of prime importance is the edge area of the site which, simultaneously, arises almost automatically.

The illustration shows the exact positioning of each zone mentioned above.

### 5.2.1 Farmland

#### 5.2.1.1. Vegetables

Farmland for vegetables is divided into four fields, each of them measuring approximately one thousand square metres. In the following, each of them will be mentioned, whilst its chronology is of decisive importance. Already Strahammer (1924, p. 44) writes about farmer's way of cultivating their land by *three-field crop rotation*.

First part of the land is for cultivation of potatoes. Regarding the size of farmland of one thousand square metres, each year's harvest amounts up to two tons of potatoes. Additionally, the potato plant loosens soil. Thus, land is prepared for the next species of plant.

This is about those kinds of field vegetables, which are so-called *heavy feeders* and whose growth is quite quick. Such field vegetables are, for instance, beetroot, carrot as well as pumpkin. In comparison to the nineteenth and twentieth centuries, in this area field vegetables such as onion, celery or horseradish were planted (Strahammer 1924).

The third part of the land belongs to extra fine vegetables. Those are meant to be especially labour-intensive and more sensitive plants. Examples

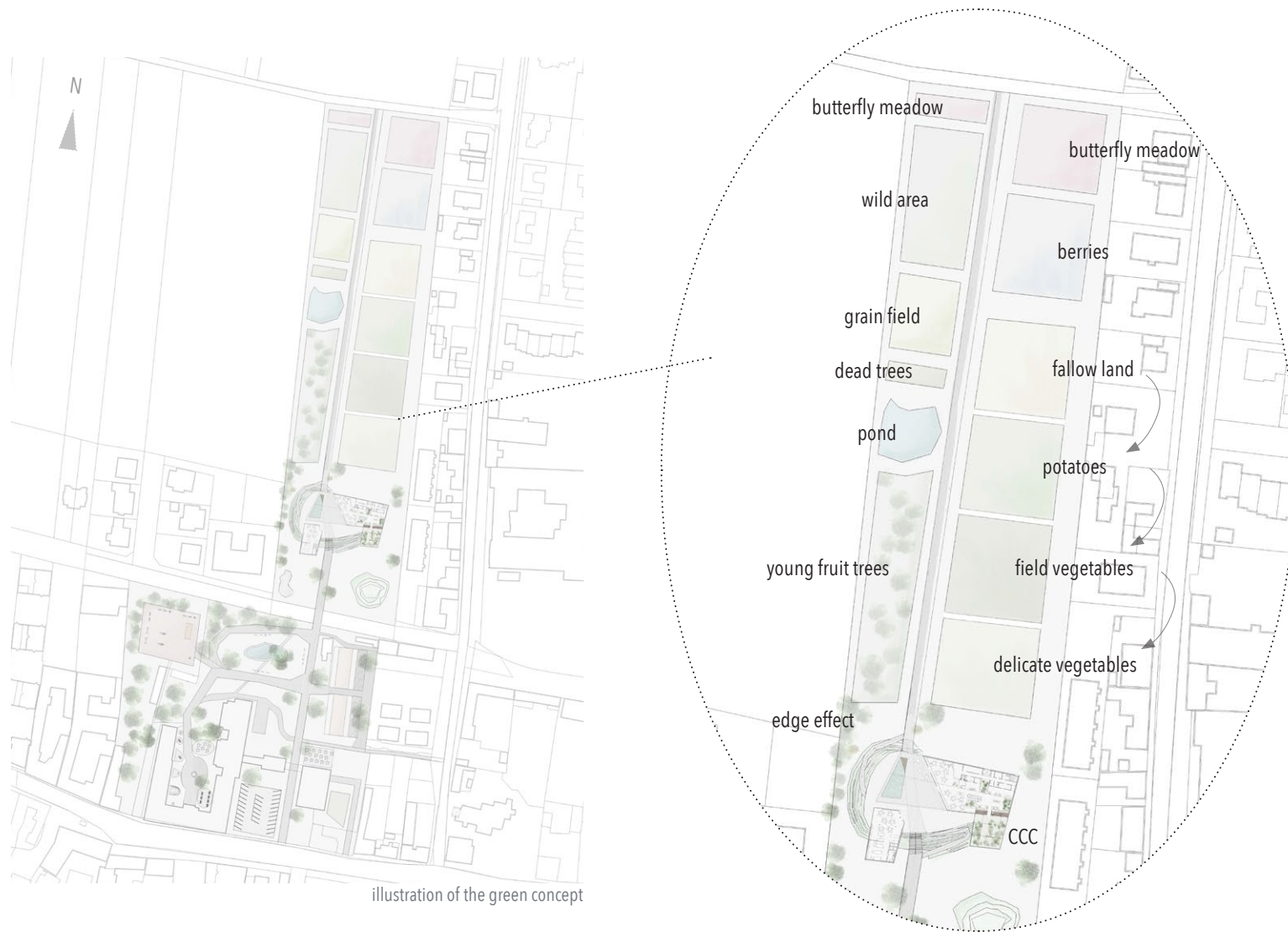


illustration of the green concept

are courgettes, tomatoes or cucumber.

After a cycle of three years, the land should lie fallow during the fourth year. This is because of crop rotation and furthermore, prevents soil from infestation of pests. If necessary, it is recommended to use green manure, such as phacelia. This is quite a gentle way of fertilizing in consideration of bees which are, in turn, definitely important for a healthy ecosystem.

In the fifth year, the cycle repeats itself, starting with cultivation of potatoes to loose soil, as mentioned above.

#### 5.2.1.2. Berries

Another thousand square metres of land are restricted to different kinds of berries, such as the following examples: blackberry, raspberry, redcurrant, blackcurrant or also white currant. Other sorts are the small kiwi which climbs like berry plants, choke berry, thai berry or the goji berry which is in European and American countries currently quite popular. Latter one prefers semi-shady to sunny locations.

The Siberian blueberry, for instance, needs a distance of approximately one metre to other plants. This kind of berry could replace the bilberry within the Lower Austrian region. This is because the Austrian bilberry needs an acid soil for being able to unfold its intensive taste.

Even figs can be cultivated within this area. It is important to say, that those plants need to come from their parents of a plant to be able to flourish within the Austrian climate. Besides, they need a distance of no less than two metres to other plants to grow unimpaired.

#### 5.2.1.3. Grain

At this point it has to be mentioned, that the concept prefers to cultivate ancient varieties of grain. The area reserved within the site measures five hundred square metres.

To cite as an example is mentioned a sort of grain which is called Emmer. At the above mentioned size of land, it brings yields of two hundred kilograms per harvest.

Another example is Single Corn which is an ancient sort of wheat or perennial which takes a proper upward trend.

By following the concept's basic idea of sustainability, not only harvest can be used for baking bread or cooking in general. Even accruing straw can be used for bedding for animals such as hens. It has to be mentioned that the combination of straw and chicken manure provides excellent manure. This is because the proportion of carbon and nitrogen within this mixture is in balance.

#### 5.2.1.4. Fruit trees

As mentioned at the beginning of this chapter, there already is an existing stock of fruit trees within this area.

The ecological concept intends to grow even more younger fruit trees. It is important to say that various species should be cultivated such as apple, pear, cherry, damson or walnut. On the other hand, also different kinds

of each species should be planted, for example the Austrian apple which is called *Kronprinz Rudolf*. Furthermore, if different sizes of those various kinds were cultivated, biodiversity is preserved at least within this site what is extraordinary important for a sustainable ecosystem.

The idea is, to ensure harvest within every year. Different kinds of fruit trees bear fruits varyingly often. Some kinds are in fruit already two years after being planted such as plum or apricot tree. If a mixing is ensured, one will certainly be able to pick fruits for the next eighty years.

## 5.2.2 Wild area

The concept plans a so-called wild area to ensure the development of an independent ecosystem within the site. Therefore, this area should be extremely extensively greened. Thus, mowing once a year is absolutely sufficient.

Furthermore, this willow could serve as first nutrition for bees within one season.

### 5.2.2.1. Bees

At least one thousand square metres should be left over only for the installation of bee hives respectively for bees. Those animals are of enormously importance for our ecological system. *Honey bees pollinate up to eighty per cent of all entomophilous plants* (Bienenschutzgarten, 2015).

Most vegetables and fruits mentioned before in this chapter belong to those kinds of plants. Furthermore, up to one third of the world's food production depends on bee's healthy activities (Bienenschutzgarten, 2015). In terms of globalisation, food supply becomes an even greater challenge considering demographic growth. While food production will increase for about seventy per cent until 2050, ninety per cent of increase in production should be realized by non traditional intensification when sustainable development has priority (Grunwald, Kopfmüller, 2006). Sustainability solely enables the ecosystem to stay healthy in the future under such conditions.

At this point, the author wants to mention, that the green concept will suggest another intensification factor in a following chapter within this work, named as the *walipini*.

In order of this short impression concerning the importance of a sustainable dealing with environment, nature's dependence on bees becomes more self-evident.

### 5.2.2.2. Butterfly meadows

Which kinds of butterflies are inhabited within this area depend on various factor such as constitution of soil, precipitation and climate. Generally important is to provide a certain degree of protection and habitat. Thus, mowing two times a year will be sufficient. It is suggested to do so in the middle of May as well as in the end of June. It is an advantage to mix several kinds of wildflowers within the area to ensure biodiversity.

As indicated before, the concept prefers to consider all aspects of sustainable usage. Herbal pillows made out of cut grass of those meadows themselves are applicable in our everyday life, for instance in health sector. Besides, selling of manufactures made out of any products cultivated or produced within the site furthermore corresponds with the idea of the concept.

#### 5.2.2.3. Special habitat of wildlife

To ensure a healthy ecosystem within the site, it is necessary to provide space for habitat of various animals. To leave a heap of deadwood anywhere within the wild area assures a living environment for animals such as hedgehog or common toad. Their nourishment encompasses between others slugs which can become a plague very easily if the number of those animals raises too high.

Besides, a heap of deadwood is an appropriate brooding biotope for birds such as redbreast, wren or some kinds of insects. It can be seen as an hotel for beneficial insects.

Additionally, dead trees and other plants can be reused what again corresponds to the idea of sustainability.

Furthermore, the concept intends to install a little pond somewhere within the wild area. This also acts as habitat for several kinds of animals, for instance, smooth newt, grass snake, common toad, green newt, brown newt and lots more.

Same refers to the installation of a stone cairn which also functions as living space for animals like the green lizard, for example.

#### 5.2.2.4. Edge effect

If you consider the physiognomy of wood as an example, you will notice that even that kind of ecosystem has its own edge area. The periphery is one of the most important elements in natural environments. It acts as a natural barrier and therefore as secure borderline as well as transition from one area to the other. Whenever possible, the edge area should be extended a little further in order to support natural basic principles.

If not naturally grown, the concept suggests to plant the following plants within the peripheral area: cherry laurel which is nourishment of a large genus of the weevil, or brambles which are considered as one of the favourite bushes of birds concerning food. Besides, bramble bushes are a natural protection against trespassing whenever required. Nevertheless, it is advantageous to install fences or other structures for berry bushes to support them in growing. Blackberry, Thai berry or raspberry need small scaffoldings to unfold their growth. Those mentioned berries are all perennial, at least for twenty years.

In consideration of the concept's way of designing, the periphery is used for marking and protecting the area, the design refers to.

### 5.2.3 Ecological and social principles

The *green* concept intends to plant herbs in addition to others, which you can manure with to ensure ecologically clean fertilization. Special kinds of herbs can be used as biological pest control or can be processed further to liquid manure if necessary.

Keeping hens is an advantageous factor for a healthy ecosystem. For example, the race of hens named *Altsteirer* is allowed to multiply themselves what continues the sustainably principle. Not only in consideration of consuming for instance, their eggs. They also produce natural dung.

Furthermore, if hens are kept under fruit trees, they decimate pest by fertilizing with dung produced by themselves. Additionally, by feeding hens with the grass around the trees, they help latter ones to grow and live without any competitors. Therefore, trees obtain enough nutrients and water to flourish.

Nevertheless, it is important to add fifty per cent of the area to which the tree's crown takes up to ensure that the tree's habitat is big enough. The concept suggests to plant for instance, bushes around the tree and again, flowers around the bushes. Latter ones can be garden phlox, peony or annual marigold which also is a medicinal plant. Other plants could be edible plants like marigold, edible chrysanthemum, nasturtium or various species of sunflowers.

Furthermore, raised herb beds will be installed in the southern part of the site where the restaurant and kitchen are situated. Those are located

within the former walls of the Stephanie Stiftung. Besides, the concept intends to place compost heaps as well, somewhere within the wild area in the northern part of the site.

Regarding all those aspects, it is possible to create an autonomous ecosystem which is able to preserve itself at least after three years.

## 5.3. CCC or Cultural Community Centre

### 5.3.1 CCC –outdoor space

The path is heading right to the building which literally welcomes people not at least because of the architectural concept. The form derives from several design approaches: On the one hand, the site where the CCC is located, reacts to its surroundings by taking over occurring lines. Additionally, the draft follows these lines in consideration of preferred infrastructural movements throughout the site.

On the other hand, the form derives from traditional Lower Austrian architecture of farm houses. In the architectural concept of the CCC this could be seen from the bird's eye view.

According to Stiglbauer (2004), the farmhouse typically consists of the following parts: A residential portion and a small annex along the street. Between them is an open entry to the courtyard. This kind of open entrance turns up in the design in terms of the main path leading through beneath the building. The whole Centre is lowered for about half a storey and extends itself by a cantilever rising above the path. While looking at it from the top view, the typical farm housing's form is recognisable.

Stiglbauer (2004) further postulates that the outbuildings as well as the stables are situated along the yard, which are installed crosswise to the street. In some farmhouses there are even other sections of the building

located in the back, again parallel to the residential part (Spielhofer, 1981).

Thus, the avenue turns into a passage, leading through beneath the Centre, guiding visitors to and through the building, taking part at those zones of encounter.

The outdoor space is subdivided into different zones. Each area invites to eat, drink and relax. In other words – it encourages people to stay. As soon as the visitor arrives right beneath the building, he will find the entrance to the Cultural Community Centre and to the café which is located in the building in- and outdoors.

In order to intensify an appropriate atmosphere as well as accentuating the space created through negative forms of architectural design methods, the draft intends to use the reflecting surface of the underside view. For that reason, a small water basin is installed beneath the cantilever which additionally acts as a room dividing element.

The outside area provides possibilities either to visit the café or relax at the stairs embracing the centre. Into those are put several seats and benches, depending on appropriate locations. Thus, a natural created relation arises between the building and its visitors.

The subsidence of the entrance level as well as the broad stairs which occur almost automatically through that design, have further reasons. The sitting-steps also act as natural seating rows in case of an outdoor cinema event takes place.





development of the CCC's design concept



site plan



fig. 8 traditional type of farm houses in Biedermannsdorf

### 5.3.2 CCC –repair cafe

Another element of the CCC's concept is the installation of a so-called repair café. The conceptual idea of this institution was already elucidated in a former chapter. This kind of café is situated in a strategically well chosen place in order to be orientated towards the entrance area of the CCC as well as along the main path. The architectural design reflects this designing approach by dissipating the edge which is orientated towards the Cultural Community Centre. Spatial structuring follows contextual functions and therefore provides areas appropriate for working and communi-

cating, machines, restrooms and a kitchen.

### 5.3.3 CCC –Walipini

*The word "walipini" derives from the bolivian-indigene Aymaran language and signifies "place of warmth" (Zachl, 2012, p. 109).*

Comparable with a common greenhouse, the walipini is lowered into the ground for almost all of it's height, maximal until only the glass roof is above earth's surface. (Lorenz-Ladener, 2012). Comparable to common glass houses, the orientation towards the sun is of fundamental importance. As it is visible in the site plan, the walipini's inclining roof leans itself to the south for maximum solar gain. That kind of glass house has its origins in former South America and already then people were dependent on maximum annual yield. Zachl (2012, p. 109) describes it with the words of an *optimal exploitation of natural resources*.

As Lorenz-Ladener (2012) describes, the soil around the greenhouse acts as a natural heat insulation. Thus, the glass house manages to stay some degrees Celsius above freezing point. Consequently, no additional heating system is required. This ensures a sustainable dealing with environment and therefore with future generations.

According to Kleedorfer (2015), the inside temperature on the ground measures about plus one degree Celsius in case of an outdoor temperature of minus ten degrees Celsius. The temperature of the inside roof



ground plan - ground level



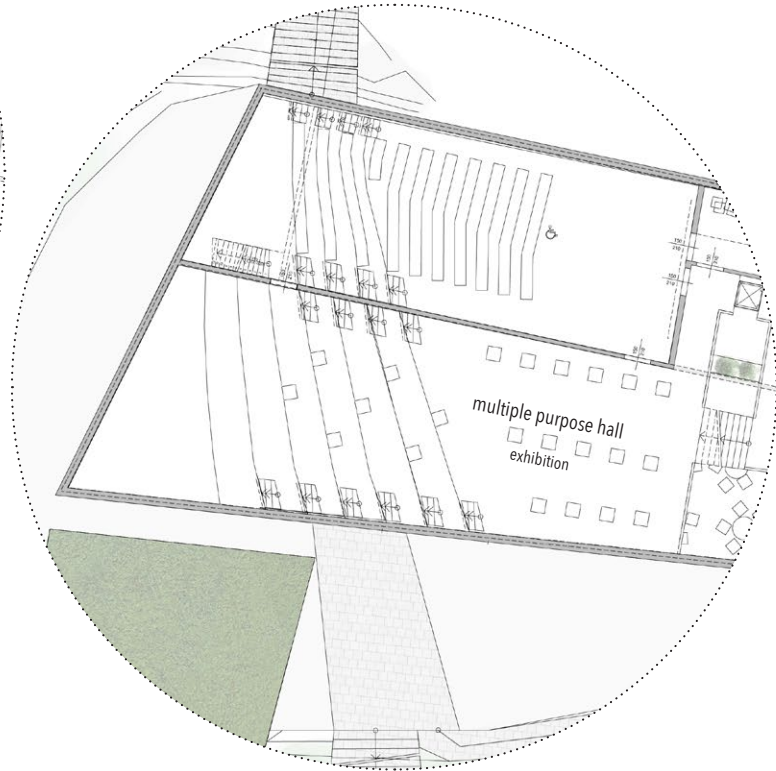
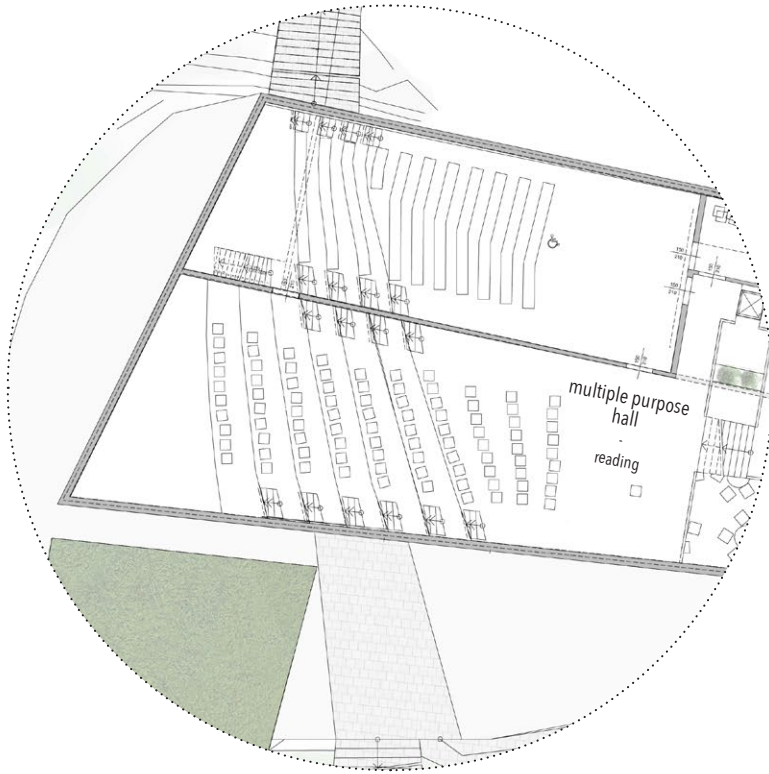


illustration above: variant - reading  
illustration below: variant - exhibition



surface is then about minus eight degrees.

In this concept, solar panels are not installed on the walipini's roof but on the roof of the Cultural Community Center itself. Thus, energy is also provided for the greenhouse if needed.

Kleedorfer (2015) postulates to use the walipini for young plant stock cultivation. During summer and fall, rather sensitive species of plants, such as melons, are placed within the glass house. Therefore, those kinds of vegetables and fruits can flourish without any loss in yield. During winter, the walipini provides optimal surroundings for seedlings such as those of lemon or laurel.

As Lorenz-Ladener (2012) suggests, the lowered green house needs a solid wall in its northern side which acts as a storage wall. Thus, the glass house is separated from the Cultural Community Centre by two walls made out of glass, standing in a distance of about one metre to each other. The space in between them is filled with soil. On the one hand, this wall acts as a storage, as elucidated before. On the other hand, it follows the sustainable principle of the concept. Consequently, visitors of the Centre see the inside of the soil through the glass and more likely learn to understand the significance of that natural material which acts as a habitat in addition. Furthermore, it is possible to use this space in between the glass-walls to show that kind of habitat. If some living organisms or insects, such as ants, for example are living within this space, they are visible for humans. Therefore, the wall is both an architectural and simultaneously an important element which is required for a working walipini.

## 5.3.4 CCC – a sustainable centre for different cultures and communities

### 5.3.4.1. Architectural concept

The Cultural Community Centre consists of several layers in split level arrangement. Those layers are not continuous within their storey. To emphasize the concept's idea of visual and spatial relations, the layers are interrupted and broken through by invisible vertical courts in different scales. On the one hand, the space around the stairs leading from one level to another is left to stay open both in horizontal and vertical direction. On the other hand, there are three so-called green courts incorporated in the CCC's solid volume. Those courts are inner courts on which grounds plants and small trees are planted. Even on top of the building they virtually break through the roof. Therefore, they generate skylights to provide enough light for photosynthesis. Simultaneously, they act as ventilation openings if needed.

At the same time, the installation of the green courts illustrates the concept's approach of incorporating natural aspects into the architecture of the Cultural Community Centre.

Another important aspect is the fact, that an organic gardener has accommodation within this building. Besides his function of food production and sale, he is in charge of the gardens in the northern part of the site as well as the walipini. Therefore, the maintenance of those institutions is



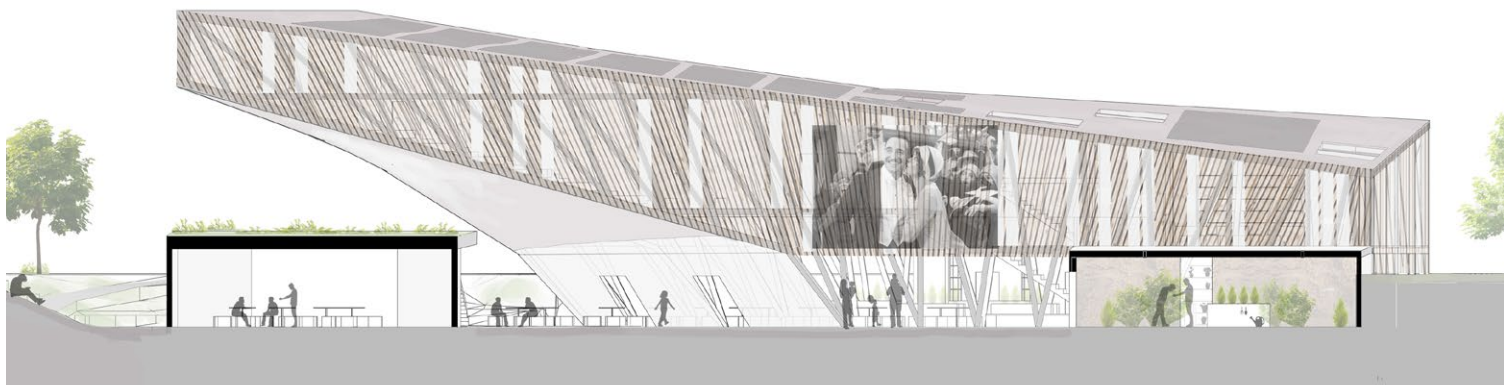
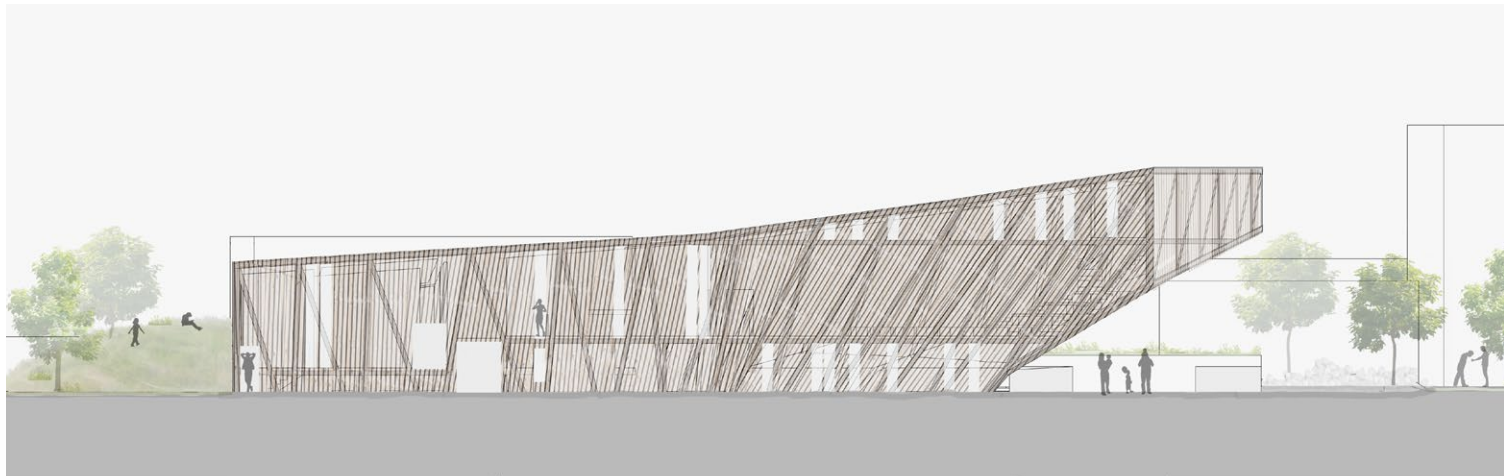


image above: northern view  
image below: southern view

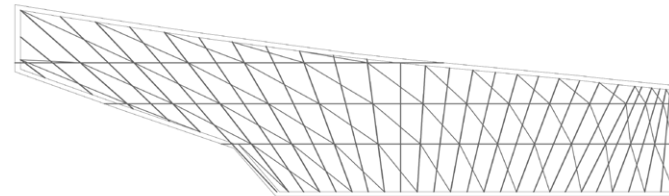
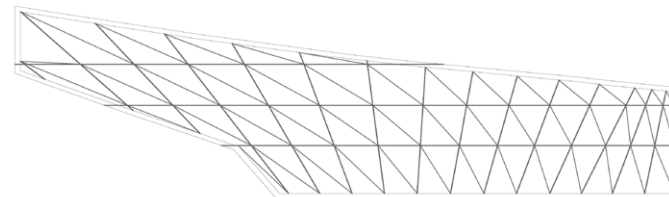
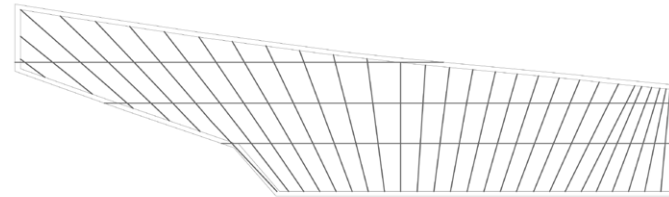
guaranteed while the gardener is able to distribute his products. In addition, food production under sustainable conditions finds public access. The concept intends to install some of the gardener's goods on the ground floor among tables of the adjacent café. This ensures people to sit in between green space although they are indoors. The intention is to once more stimulate people's awareness of sustainability in consideration of food production respectively in general.

On the same level, namely on the ground floor, are technical rooms and ones for building services located. Besides, there are storerooms, restrooms and the kitchen for the café.

Nearby the entrance is the encounter with the café's bar behind as well as the ticket counter. There, tickets are available for special events such as cinematic presentations on which the author refers to within the next paragraphs.

Furthermore, the Cultural Community Centre provides two kinds of large public rooms respectively halls on the first floor.

The first one, which is located on the northern side of the building, is for cinematic or musical purpose as mentioned above. Its design provides benefits if darker atmospheres are needed as they are required in cinema programs for example. At the same time, it is suitable for usages such as musical performances thanks to its closed designing character. The other hall has quite opposite features. It is situated southerly next to it and intended for flexible usage. The open way of designing is accentuated by a wide gallery. That is orientated towards the generous open space enab-



development of design - truss frame and facade

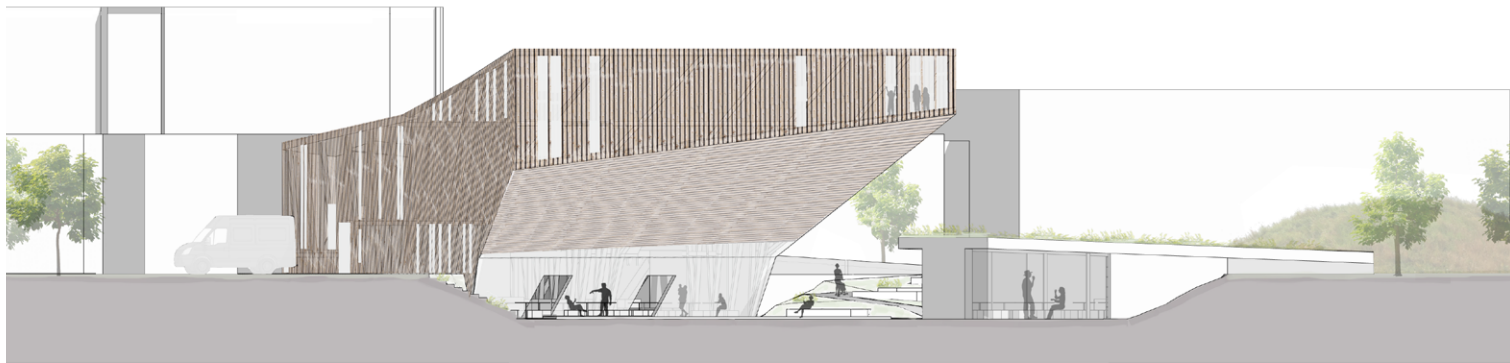
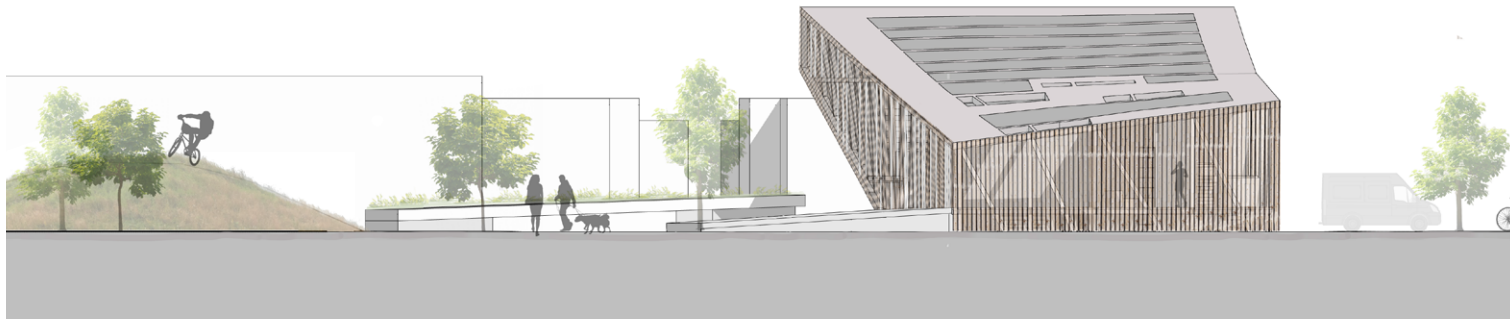


image above: eastern view  
image below: western view

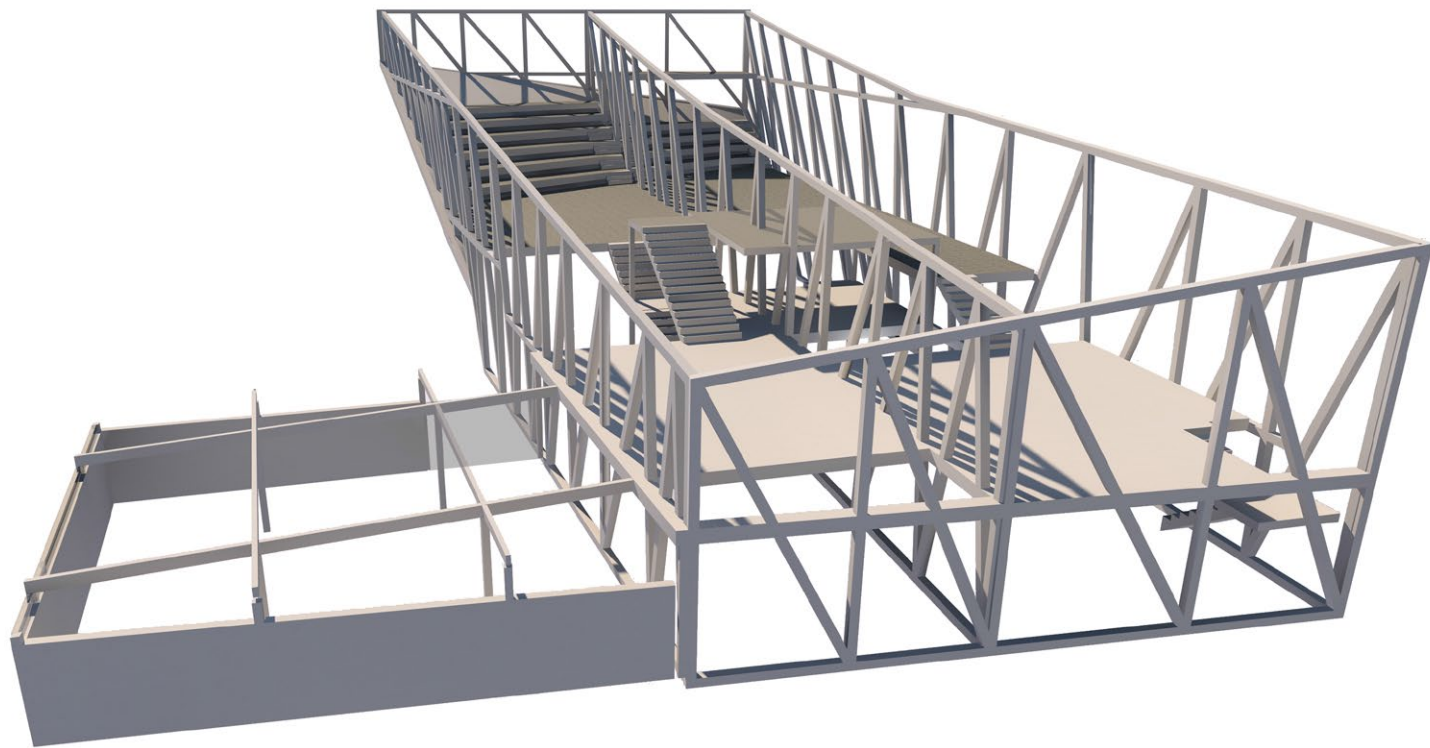


illustration of the structural design concept

ling the view onto the ground floor, the stairs as well as the vertical green courts.

The ground plans respectively show three different ways of arranging the so-called multiple purpose hall. The concept suggests following applications: First possibility is to use the room for exhibition purposes. Since there are modular furnishing elements available, they can be organised in accordance with required functions.

Another ground plan shows the adaption of the multiple purpose hall for certain events such as readings or lectures. Again, the cubic sitting elements can be situated depending on current needs. Same system is applicable if the hall is used for workshops which is illustrated in the third version of the ground plan.

Within the Cultural Community Centre there is another intermediate storey which is a bit lower situated than the halls. For better explanation, those levels are named as split level one and two, both part of the first floor. Easily reached by a half pace from the main stairs, on the first split level following places are located: One of two seminar rooms which is situated in a way that it adjoins the open space around the stairs on the left side and one of the green courts on the right side. Second, within a smaller room next to the latter one, there is database for rare and rather unknown plant seeds. It is separated by modular walls so that the rooms can be joined if necessary.

Furthermore, there is a storage area situated on that storey. It extends itself to the next floor in order to ensure uncomplicated storing on both

levels. There is space for staff within this supplying area as well. Latter one is divided to be partially on the ground floor with its already named functions, partially both of the two split levels. In order to keep the supplying area rather compact, one layer is placed above the other.

By completing the CCC's room program, the second seminar room should be elucidated as well. It is located on the second floor, again, within easy reach by the main stairs. Likewise, it is located in orientation towards one of the green courts and the vertical space.

All floors can be accessed by an escalator, while both storage areas have their own goods lift.

As shown in the concept of spatial arrangement, the Cultural Community Centre has its focus both outdoors and indoors on visual relations. Open designed space is one of the conceptual principles. This kind of designing language epitomises society's candour in general consideration. That means, the concept intends to support people's open-mindedness by architectural approaches.

Those methods are supposed to enhance people's interaction and therefore the integration of people with migration background. Architecture has the ability to express conceptual approaches in artistic ways in order to reach further social classes (Grunwald, Kopfmüller, 2006).

By completing the concept's approach, all functions of the spatial concept that the building provides are well chosen in consideration of correlating interests both of inhabitants as well as people with different cultural origins.

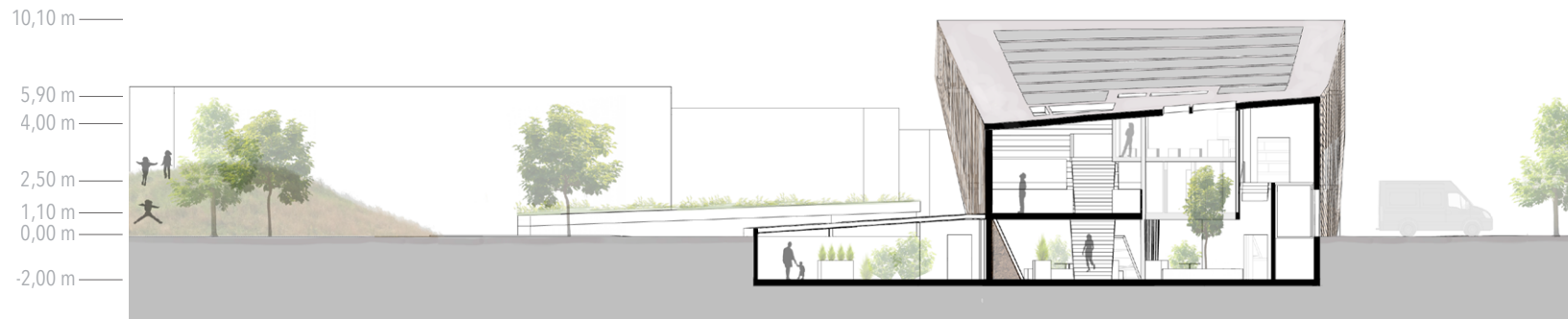
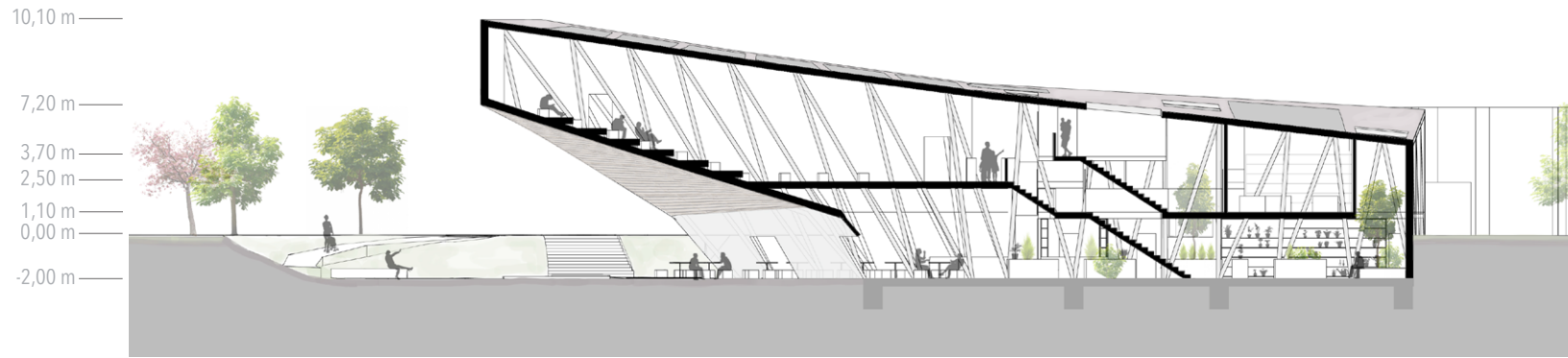


image above: longitudinal section AA  
 image below: cross section BB

#### 5.3.4.2. Energy supply

As mentioned above, the Cultural Community Centre receives part of its energy from photovoltaic elements on the roof. In consideration of this concept's approach, a sustainable supply is of prime importance for this design. This is not at least due to the fact that the building sector is responsible for one third of the world's total energy consumption, as Eicker (2012) postulates.

Furthermore, she assumes that the maximal irradiation with a deviation of ten per cent is about 1200 kWh m<sup>-2</sup> a<sup>-1</sup> within the area, where the site is located.

Solar panels on the Cultural Community Centre's roof measure about three hundred fifty square metres.

Due to the architectural design, the roof is orientated towards southeast what improves solar gain. In addition, the building obtains energy through geothermal heat as well as heat pumps. Furthermore, a heat recovery system is installed in order to reuse warmth contained in outgoing air.

The Centre's façade helps air-conditioning the building in a sustainable way. According to functional requirements of the inside, the outside cover is either closed, semi-open or fully open.

The composition of the façade derives from several studies in order to match the design of the building's structure and functional requirements shown in the ground plans.

The fully open variant indicates that windows are installed at this point.

Those are situated within the same vertical plane as the surface of the façade.

Light reaches far into the building whenever needed. Whether for ensuring plant's photosynthesis, mechanical air conditioning, simple natural lighting or, of course, passive solar gain.

The façade is made out of vertical wooden lathing, for example, made out of cedar wood. The slats are assembled in order to keep a distance that measures their own width.

A semi-open façade, for instance, means that behind the wooden elements is a glass façade. That partially closed layer enables light slightly entering through the hull.

However, the closed variant of the building shell, closes the glass façade while using the wooden lathing as kind of a curtain wall. Therefore, the hull acts as a dense layer in terms of an energy storage. Heat insulation is made out of wood-based respectively natural materials.

By controlling the intensity of insolation, the building plans to use both of the following aspects: On the one hand, by shadowing the inner of the Centre, it is protected against overheating while simultaneously providing visitors a relation outwardly. On the other hand, the semi-open façade helps the building saving energy in consideration of solar gain and therefore preventing it of being wasted.

Additionally, the Centre is lowered into the ground to partially use thermal energy provided from soil, what ensures lower consumption when it comes to heating or cooling.

As already indicated before, the underside view of the Cultural Community Centre's cantilever arm as well has a wooden outer surface. In order to ensure its reflecting character as indicated by the concept's atmospheric space, the exterior layer is perforated with spar varnish. Thus, resistance to weather conditions is ensured as well. It is suggested to use wood-based materials as covering such as plywood elements or medium-density fibreboards. In consideration of price and manufacturing those materials have several advantages. If well finished long working life is ensured, especially if attached onto the underside of a cantilever element in order to be protected against outside influences.

It would contribute to the building's design attractiveness to apply wood-based materials such as ply wood as covering on the roof as well. However, the building's top surface is of rather big dimension, it's surface often interrupted by solar panels as well as sky lights and directly exposed to weather conditions. Therefore, the concept relinquishes to apply materials such as ply wood. Instead, other superstructures are preferred, for instance, tin- or gravel-covered roof systems.

The Cultural Community Centre's structure consists of three main truss frames, encompassing the whole length of the building. Those three layers' frames are horizontally connected in each storey. The structure too, is made out of wood. By a white coating, it stands out against the outer building shell in order to represent itself as part of the architectural design.





## 6. A conclusion



three-dimensional illustration of the CCC - Western view

As discussed within this thesis, the concept's approach is the correlation of sustainable, integrative and architectural aspects. The master plan translates that theoretical idea into physical models.

The concept is adapted to the building complex of a former orphanage as well as its adjacent land in Biedermannsdorf, near Vienna. The fact that ever since a social function was applied to the home, even more encourages the project's conceptual approach to follow societal values. Additionally, a Cultural Community Centre gets newly built within the site.

Both the theoretical idea and the scene are profiting from each other in order of enriching their effectiveness. Besides, the concept achieves an enhancement for the village's communal strength. This concerns not only inhabitants but also people with migration background. Due to several integration methods which are converted in architectural and urban designing ways, contribution to social cohesion is possible.

Migration is a current issue, due to war, globalisation and therefore disparity in social issues and natural resources. These days, migration flows to Europe in extraordinary high number of people are following those developments. However, its inhabitants live in developed countries, in part evoked by the following facts: Grunwald and Kopfmüller (2006) claim, that due to post-colonial structures some countries gained a majority of their wealth. Additionally, climate change, which is in turn one of the consequences of pollution due to globalisation, reinforces anyhow existing geographical disparities. That, in turn, is followed by the fact that developed countries likelier profit from climatic changes than developing

countries, where anyhow extreme weather conditions even increase due to climate change. Long time, wealthy, industrialised countries outsourced their production in poorer ones and therefore contributed to pollution as well as reinforced the low-pay sector.

Thus, the author stakes out the opinion that, in this case, European inhabitants have a certain responsibility of returning mostly immaterial goods to people with migration background such as their willingness to receive foreign communities.

Not even to mention *the right to (...) peace and an intact environment* (Grunwald, Kopfmüller, 2006, p. 41) which is part of the human rights which are approved in European countries. That even implicates the reception and integration of war refugees without any consideration of former geopolitical structures.

Therefore, integration of migrants as a current issue, needs to be considered in ongoing developed urban structures. Consequently, this paper starts the attempts to provide an opportunity for integration while using existing, local resources. That, in turn, is one of the sustainable aspects the thesis places importance on.

For example, existing farmland within the site is cultivated in order to partly provide self-supplying structures. Furthermore, educational aspects in consideration of raising people's awareness concerning sustainability are pursued. This is even supported in the installation of a so-called par-kour of senses in order to encourage people's motivation of learning.

By those mentioned factors, the concept managed to open the already

existing geographical centre for public while encouraging them of being open with new societal structures.

It has to be mentioned as well that the former orphanage, though located in the municipality of Biedermannsdorf, belongs to the city of Vienna. Therefore, Biedermannsdorf has to arrange all modifications concerning this building as well as adjacent land with the capital.

That is considered to be one of the main reasons why infrastructural situations came about as they are now.

It is imaginable to further examine, if this thesis' concept can be applied to other rural structures in order to actively include inhabitants for integrative approaches while using existing resources.

## 7. Bibliography

AUGUSTIN, H. (1980) *Biedermannsdorf: Heimat einst und jetzt*. Mödling: Marktgemeinde Biedermannsdorf.

BIENENSCHUTZGARTEN (2015) *Warum sind Bienen so wichtig*. [Online] Available from: <http://www.bienenschutzgarten.at/de/warum-sind-bienen-so-wichtig.html>. [Accessed: 26/12/2015].

DANGSCHAT, J. (2000) Der Einfluss der Migration auf eine nachhaltige Stadtentwicklung. In: MUSD, Vienna 98. Verant.: Stadt Wien, Republik Österreich (ed). *Migration und nachhaltige Stadtentwicklung – Publikation der Vorträge der internationalen Konferenz, Wien, 1998*. Vienna: Stadtplanung Wien, Magistratsabt. 18.

DERSTANDARD.AT (2011) *Vom Heim zur WG: Die Kinderheim-Reformen*. [Online] Available from: <http://derstandard.at/1318726051550/Hintergrund-Vom-Heim-zur-WG-Die-Kinderheim-Reformen>. [Accessed: 29/12/2015].

DVOŘÁK, J., MÜCKLER, H. (2011) *Staat - Migration - Globalisierung*. Vienna: Facultas.

EICKER, U. (2012) *Solar Technologien für Gebäude*. 2nd Ed. Wiesbaden: Vieweg+Teubner.

GARSON, J.-P. (2000) Neuere Tendenzen auf dem Gebiet der Migration und verschiedene politische Methoden zur Integration von Zuwanderern in den OECD-Ländern. In: MUSD, Vienna 98. Verant.: Stadt Wien, Republik Österreich (ed). *Migration und nachhaltige Stadtentwicklung – Publikation der Vorträge der internationalen Konferenz, Wien, 1998*. Vienna: Stadtplanung Wien, Magistratsabt. 18.

GRUNWALD, A., KOPFMÜLLER, J. (2006) *Nachhaltigkeit*. 2nd Ed. Frankfurt/Main: Campus-Verl.

HAFNER-DÜRINGER, B., MASTNY, W., SPRINGER, E. (2010) *Historischer Überblick*. [Online] Available from: <http://www.laxenburg.at/cgi-bin/ONLWYSIWYG/ONL.cgi?WHAT=INFOSHOW&ONLFA=GEM&INFONUMMER=62867749> [Accessed: 04/10/2015].

HARDTKE, A. AND PREHN, M. (eds) (2001) *Perspektiven der Nachhaltigkeit: Vom Leitbild zur Erfolgsstrategie*. Wiesbaden: Gabler.

HARTL, F. (n.d.) *110 Jahre Kinderheim der Stadt Wien Biedermannsdorf: 1883-1993*. Mödling: St. Gabriel Verlag.

HERCZEG, P. (2011) *Migration aus kommunikationswissenschaftlicher Perspektive*. In: Staat – Migration – Globalisierung. Vienna: Facultas.

HIRSCHMANN, G. (2003) *Grundlagen, Möglichkeiten und Grenzen einer Bildung für nachhaltige Entwicklung im Rahmen des Wirtschaftslehreunterrichts*. A Thesis Submitted in partial fulfilment of the Requirements of Ludwig-Maximilians-University for the Degree of Diplomhandelslehrer. Norderstedt.

HOCHGERNER, J. (2011) Migration ist Mobilität in der Weltgesellschaft. In: *Staat – Migration – Globalisierung*. Vienna: Facultas.

KLEEDORFER, J. (2015) *Ecological and social principles regarding the plot of land in Biedermannsdorf, Ortsstraße 56-58*. [Interview] 18th March 2015.

KONVITZ, J. (2000) Tendenzen nachhaltiger Stadtentwicklung. In: MUSD, Vienna 98. Verant.: Stadt Wien, Republik Österreich (ed). *Migration und nachhaltige Stadtentwicklung – Publikation der Vorträge der internationalen Konferenz, Wien, 1998*. Vienna: Stadtplanung Wien, Magistratsabt. 18.

KRUMMACHER, M. (2000) Thesen zur Partizipation von Migranten als Ressource nachhaltiger Stadtentwicklung. In: MUSD, Vienna 98. Verant.: Stadt Wien, Republik Österreich (ed). *Migration und nachhaltige Stadtentwicklung – Publikation der Vorträge der internationalen Konferenz, Wien, 1998*. Vienna: Stadtplanung Wien, Magistratsabt. 18.

LORENZ-LADENER, C. (2012) *Kleine grüne Archen*. Staufen bei Freiburg: Ökobuch-Verlag.

MÜCKLER, H. (n.d.) *Sozialwissenschaften und gesellschaftlicher Wandel: aktuelle Debatten*. Staat, Migration, Globalisierung in der Kultur- und Sozialanthropologie. [Online] Available from: <http://www.univie.ac.at/sowi-online/esowi/cp/debattenksa/debattenksa-full.html> [Accessed: 16/06/2015].

RINGER, E. (2015) Integrative approaches of people with migrant and/or socially indigent background into society. [Interview]. 22nd March 2015.

SALLARD, O. (2000) Migration und nachhaltige Stadtentwicklung. In: MUSD, Vienna 98. Verant.: Stadt Wien, Republik Österreich (ed). *Migration und nachhaltige Stadtentwicklung – Publikation der Vorträge der internationalen Konferenz, Wien, 1998*. Vienna: Stadtplanung Wien, Magistratsabt. 18.

SEN, F. (2000) Die türkischen Migranten in der BRD. In: MUSD, Vienna 98. Verant.: Stadt Wien, Republik Österreich (ed). *Migration und nachhaltige Stadtentwicklung – Publikation der Vorträge der internationalen Konferenz, Wien, 1998*. Vienna: Stadtplanung Wien, Magistratsabt. 18.

SPIELHOFER, H. (1981) *In alten Bauernhäusern leben*. 2nd Ed. Graz: Leo-



pold Stocker Verlag.

SPRINGER GABLER. (2015) *Gamification*. [Online] Available from: <http://wirtschaftslexikon.gabler.de/Definition/gamification.html>. [Accessed: 30/12/2015]

SGE GROSZ STADTAUSSTELLUNGSGmbH. (n.d.) *Stadtausstellung: Das kommunale elektronische Leitsystem*. [Online] Available from: <http://www.stadtausstellung.at/biedermannsdorf/> [Accessed: 04/10/2015]

STICHTING REPAIR CAFÉ. (2015) *Repair Café*. [Online] Available from: <http://repaircafe.org/de/was-ist-ein-repair-cafe/>. [Accessed: 29/12/2015]

STIGLBAUER, K. (2004) *Biedermannsdorf: Der Wandel eines Bauerndorfes zur Stadtrandgemeinde von Wien*. Wien: Eigenverlag der Marktgemeinde Biedermannsdorf.

STRAHAMMER, A. (1924): *Biedermannsdorfer Heimatkunde*. Wien: Österr. Schulbücherverlag.

WALTZ, V. (2000) Nachhaltige Stadtentwicklung und beste Integrationspraktiken. Thesen zur Situation und den Notwendigkeiten in der Bundesrepublik Deutschland. In: MUSD, Vienna 98. Verant.: Stadt Wien, Republik Österreich (ed). *Migration und nachhaltige Stadtentwicklung*

– *Publikation der Vorträge der internationalen Konferenz, Wien, 1998*. Vienna: Stadtplanung Wien, Magistratsabt. 18.

WIKIMEDIA FOUNDATION INC. (2015) *Liste von Kinderheimen in Österreich*. [Online] Available from: [https://de.wikipedia.org/wiki/Liste\\_von\\_Kinderheimen\\_in\\_%C3%96sterreich#Kinderheime\\_in\\_Nieder.C3.B6sterreich](https://de.wikipedia.org/wiki/Liste_von_Kinderheimen_in_%C3%96sterreich#Kinderheime_in_Nieder.C3.B6sterreich). [Accessed: 28/12/2015]

ZACHL, E. (2012) Das Walipini. In: Lorenz-Ladener (ed). *Kleine grüne Archon*. Staufen bei Freiburg: Ökobuch-Verlag.

## 8. List of figures

- fig. A AILURA - EIGENES WERK. (2016) *Biedermannsdorf Wasenhof*. Wikimedia Commons. [Online Image] Available from [https://de.wikipedia.org/wiki/Liste\\_der\\_denkmalgesch%C3%BCtzten\\_Objekte\\_in\\_Biedermannsdorf#/media/File:Biedermannsdorf\\_Wasenhof.jpg](https://de.wikipedia.org/wiki/Liste_der_denkmalgesch%C3%BCtzten_Objekte_in_Biedermannsdorf#/media/File:Biedermannsdorf_Wasenhof.jpg). [Accessed: 4th January 2016].
- fig. 1 STRAHAMMER, A. (1924) *Biedermannsdorfer Heimatkunde*. Wien: Österr. Schulbücherverlag.
- fig. 2 STIGLBAUER, K. (2004) *Biedermannsdorf: Der Wandel eines Bauerndorfes zur Stadtrandgemeinde von Wien*. Wien: Eigenverlag der Marktgemeinde Biedermannsdorf.
- fig. 3 STIGLBAUER, K. (2004) *Biedermannsdorf: Der Wandel eines Bauerndorfes zur Stadtrandgemeinde von Wien*. Wien: Eigenverlag der Marktgemeinde Biedermannsdorf.
- fig. 4 STIGLBAUER, K. (2004) *Biedermannsdorf: Der Wandel eines Bauerndorfes zur Stadtrandgemeinde von Wien*. Wien: Eigenverlag der Marktgemeinde Biedermannsdorf.
- fig. 5 STIGLBAUER, K. (2004) *Biedermannsdorf: Der Wandel eines Bauerndorfes zur Stadtrandgemeinde von Wien*. Wien: Eigenverlag der Marktgemeinde Biedermannsdorf.
- fig. 6 STIGLBAUER, K. (2004) *Biedermannsdorf: Der Wandel eines Bauerndorfes zur Stadtrandgemeinde von Wien*. Wien: Eigenverlag der Marktgemeinde Biedermannsdorf.
- fig. 7 SSTIGLBAUER, K. (2004) *Biedermannsdorf: Der Wandel eines Bauerndorfes zur Stadtrandgemeinde von Wien*. Wien: Eigenverlag der Marktgemeinde Biedermannsdorf.
- fig. 8 STIGLBAUER, K. (2004) *Biedermannsdorf: Der Wandel eines Bauerndorfes zur Stadtrandgemeinde von Wien*. Wien: Eigenverlag der Marktgemeinde Biedermannsdorf.