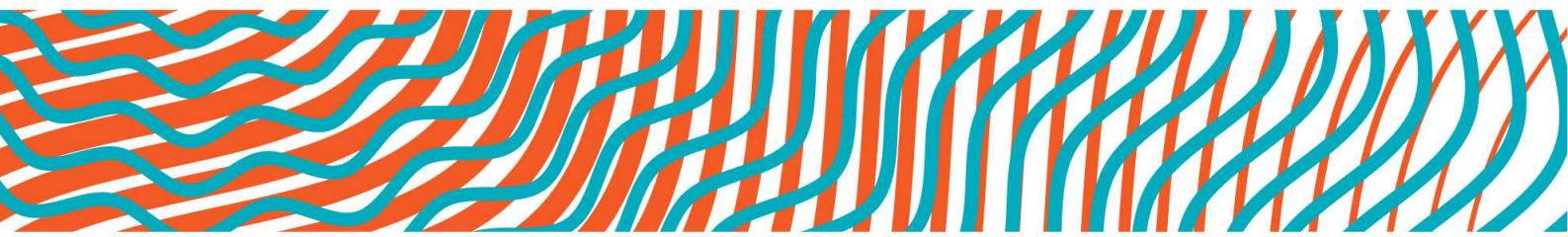


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WP 4 | CASE STUDY Report: cohousing: the eco-district of **Vauban** and the co- housing project **GENOVA**

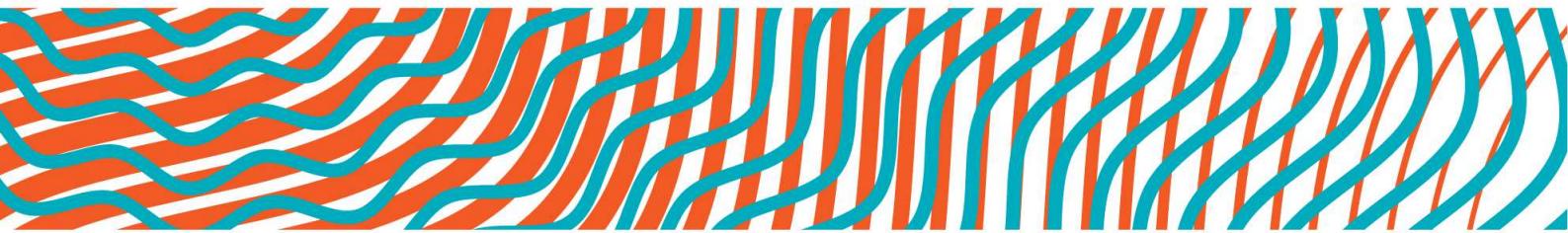
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transformative social innovation theory

Table of contents

5 Local Initiative #2: Vauban district	5
5.1 Introduction to Vauban in Freiburg.....	5
5.1.1 Development and data of Vauban	7
5.1.1.1 Timeline of the development of Vauban	7
5.1.1.2 Spatial differentiation: Vauban as a cluster of multiple forms of housing.....	11
5.1.1.3 Socio-demographical data	12
5.1.1.4 Vauban – a framework of housing projects.....	13
5.2 Emergence of Social Innovation in Vauban	16
5.1.2 Aims and values of Vauban.....	16
5.1.3 The emergency of a citizen movement for planning the district.....	17
5.1.4 Participatory planning process: City of Freiburg and Forum Vauban.....	18
5.1.4.1 Residents plan their houses: process of “Baugruppen”	19
5.1.4.2 Participatory and ecological planning of public spaces with residents.....	19
5.1.5 Cooperative living.....	20
5.1.6 Energy-efficient housing.....	20
5.1.7 Car-reduced living.....	20
5.1.8 Co-housing case GENOVA.....	21
5.3 TSI dynamics in Vauban	22
5.1.9 Motives and transformation of Vauban activists.....	22
5.1.10 Constant development of Vauban by the activists	23
5.1.11 Top-down meets bottom-up planning.....	24
5.1.11.1 Co-learning process of city and citizens between collaboration and conflicts	25
5.1.12 Changing generations in Vauban.....	28
5.1.13 Transformative effects and model character	29
5.1.13.1 Societal transformation and mainstreaming processes.....	29
5.1.13.2 International Publicity	30
5.1.13.3 Green City Freiburg and Vauban	30
5.4 Agency in Vauban.....	31
5.1.14 Actor mapping	32
5.1.15 Governance	33
5.1.15.1 Internal governance in Vauban	33
5.1.15.2 External governance in Vauban	35
5.1.15.3 Internal governance in GENOVA	36
5.1.15.4 External governance in GENOVA	37
5.1.16 Social learning through Vauban	37
5.1.17 Resources	39
5.1.18 Monitoring and evaluation in Vauban	41
5.5 Summary, synthesis, conclusion for Vauban	42
5.5.1 Vauban as a co-housing framework	42
5.5.2 Cooperative and other co-housing models in Vauban	43
5.5.3 Model function and replicability of Vauban	44
7 References.....	45
C. List of interviews	48
D. List of meetings and events attended.....	49

transformative social innovation theory

List of Tables and Graphs

Table 5.1: timeline and development of Vauban (by Andrea Philipp)

Table 5.2: co-housing and other important projects in Vauban (by Andrea Philipp)

Graph 5.1: map of ownership structures in Vauban (by Rich Lutz, naturconcept-eco.de, added by Iris Kunze)

Graph 5.2: Actor map 1 of Vauban: dynamics over time in detail (by Iris Kunze)

Graph 5.3: Actor map 2 of Vauban: dynamics simplified (by Iris Kunze)

Abbreviation	Labels & Keywords
Baugruppe	Organized group of private housing builders/ owners or of a cooperative
DE	Deutsch/ German
EN	English
GRAG	Vauban city council working group
SI	social innovation
SUSI	Self-organised settlement initiative, inside Vauban
TSI	Transformative Social Innovation
VB	Vauban – district of ecological housing in Freiburg, Germany

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5 Local Initiative #2: Vauban district

By Iris Kunze and Andrea Philipp

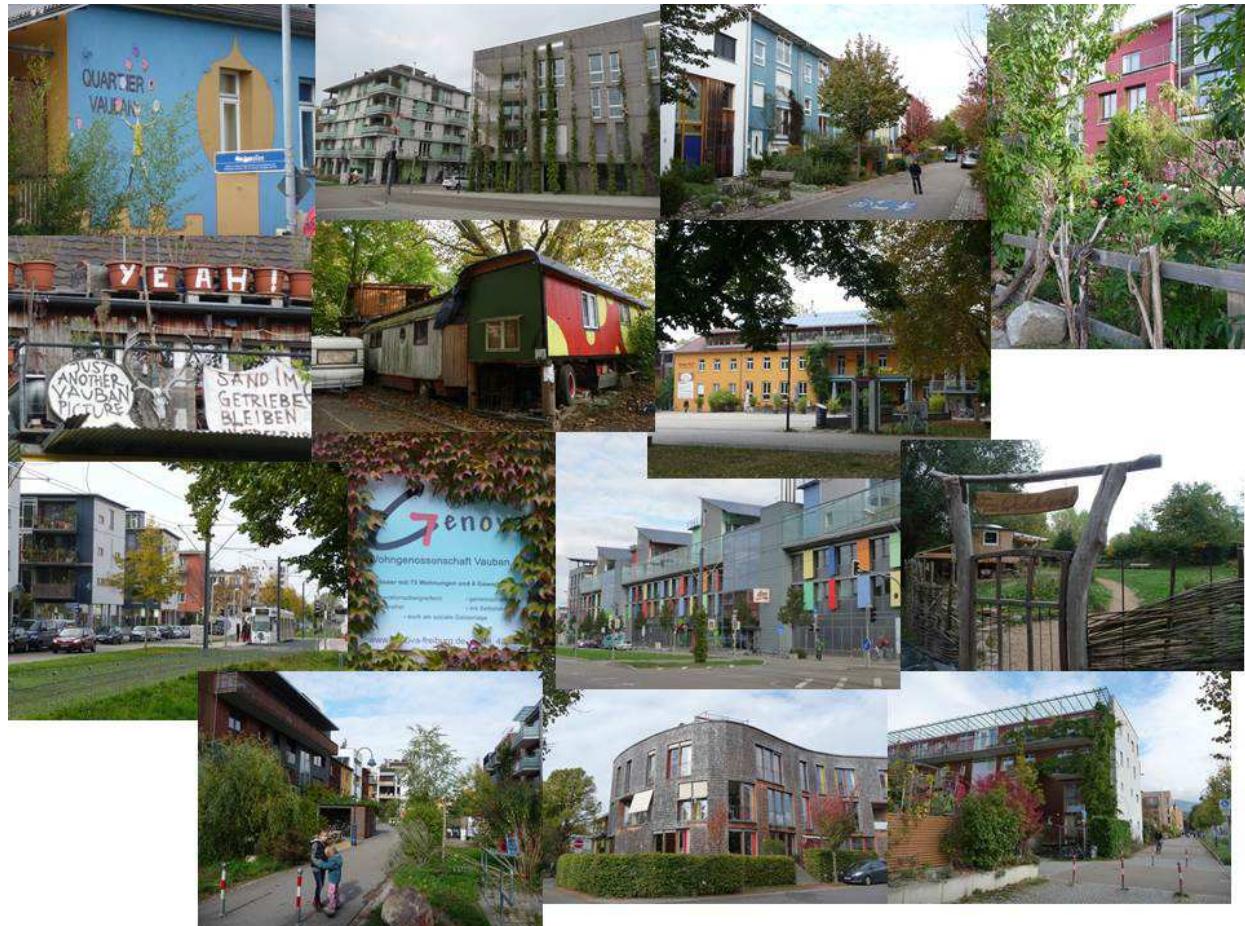


Figure 5.1: Impressions from Vauban: In the middle, the yellow district center 'Haus 37' (photos: Iris Kunze)

5.1 Introduction to Vauban in Freiburg

Vauban is a special model district of sustainable living and participatory planning in which several co-housing initiatives have been realized. The Vauban district is not a single co-housing project, but a whole, somewhat unusual – and as such very specific and innovative – city quarter which is hosting a variety of different housing projects, with a special focus on citizen-lead building initiatives and private co-housing projects. Legally, Vauban is a newly build, just finished district providing 2000 housing units for about 5.500 residents of the city of Freiburg / Breisgau, which is located in the state of Baden-Württemberg in Germany. The area had been a French military base until 1992. After the departure of the military, the Vauban district was designed and rebuilt anew during a unique citizen-involvement process – for which it has been awarded several times – by the City of Freiburg together with the citizen-lead association '*Forum Vauban*' as a bottom-up actor with a mandate in the Vauban city planning council. The citizen initiative had a strong vision to realize a sustainable, ecological, green district with participatory planning, cooperative ownership and

transformative social innovation theory

affordable housing. There are controversial opinions as to whether these aims have actually been realized or not. In fact, Vauban has seen its last house being completed just this year¹. It now has more than 70 resident-organized co-housing projects² – either private or by cooperatives – on a surface of about 70% of the total area of 41ha of Vauban. Furthermore, Vauban citizens are extremely content (see chapter monitoring) and a new business area has been created, serving urban planners and mayors from all over the world by guided study visits through this experimental district to learn from its example. Due to its innovative, ecological and car-reduced policy, Vauban is the greenest and most densely populated city district of Freiburg. It is located quite centrally in the Southern part of Freiburg.

Even though Vauban is not a classic, single co-housing project, we have chosen this case for three reasons. First, it is an ecological, sustainable district which has consciously set itself social objectives such as inclusiveness and affordable housing, as well as short distances. Second, Vauban hosts several housing cooperatives and co-housing projects and is therefore a quarter offering space for multiple kinds of co-housing. And third, it is an internationally known project and model that has inspired cities all over the world in view of sustainable planning especially with regard to citizen involvement. Due to the intention of TRANSIT to choose a co-housing project as case study, Vauban is especially interesting because it consists of different types of co-housing projects and ownership models. We decided to choose the largest and oldest co-housing cooperative of Vauban, called GENOVA (Wohngenossenschaft Vauban), as a specific case to describe in more detail. Therefore, we will offer two separate subsections during most of the report, on Vauban as a whole and on GENOVA in particular.

In order to understand the character of the Vauban district, we will first make some introductory comments about the cooperative movement in Germany. The cooperative link-up group is the largest economic organisation in Germany in terms of members, with over 20 million members. Of these, 3.8 million are members of housing cooperatives.³ In Germany 2.000 housing cooperatives own and run more than two million apartments. The CooperativesAct, first adopted in 1889, was reformed in 2006. This legal framework rules the housing cooperatives in Germany by determining the cooperatives' organizational rules, including their business conduct.⁴ Although the absolute number of new cooperatives has not increased since 2006, their market share has clearly increased (Enkeleda 2011).

Second, we will introduce the socio-political situation in the city of Freiburg. Freiburg has about 220.000 inhabitants and is one of the strongest growing cities in Germany due to its geographical and cultural attractiveness, and multiple leisure time facilities. It has a large 550 years old university and is considered to be one of the warmest and sunniest cities in Germany. Located close to the French and Swiss borders and to the Black Forest, it has become a cultural and economic regional hub, offering a high quality of life. For these reasons Freiburg has become one of the most expensive cities in view of the housing situation in Germany, similar to Munich or Frankfurt. While Munich and Frankfurt are major cities with a much more important and more international labor market,

¹ For more Vauban site facts see e.g. Simon Field, ITDP Europe Case Study Vauban“

² See study of University RWTH Aachen: http://www.freiburg.de/pb/site/Freiburg/get/params_E-1133256332/745547/kl_Praesentation.pdf slide 24; 2015-12-11

³ <https://www.dgrv.de/en/aboutus.html> 2015-12-04

⁴ Second, the Rent Regulation Act is relevant, which rules the obligations and responsibilities of all landlords of rental dwellings, including housing cooperatives such as rent increases (ICA) (Enkeleda 2011).

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Freiburg is a so called ‘regional metropolis’ lacking a labor market which would pay adequate wages as compared to its average housing prices. This conflict which is especially affecting students and other citizens with low income has become increasingly severe since the eighties. This has resulted in a series of causes and effects: first, a high pressure on the housing market, second, creative forms of alternative living like trailer home communities, and third, ongoing urban planning activities of the municipality, trying to explore and build new areas and quarters.

Freiburg has a reputation as an ‘eco-minded’ city for a long time already, not the least because of its university with a strong social, philosophical and psychological tradition attracting many critical thinkers. Martin Heidegger, Edmund Husserl, Hannah Arendt and others have studied and taught in Freiburg. The emergence of what is today considered as the spirit of “Green City” Freiburg is usually dated back to the civil protest movement against the state government’s plans for a nuclear power plant in the nearby village of Wyhl. The protest united various critical, politically “left” groups of academics, as well as regional farmers with a rather conservative background. Later, Freiburg was the first city in Germany which voted for a green political majority. Since 2002, the City is ruled by Lord Mayor Dieter Salomon of the Green Party, now in his third term in office.

In the following chapters, we will first explain the chronological development and spatial structure of Vauban, listing the projects, mainly co-housing ones, inside the Vauban quarter. Then, we will discuss how social innovation emerges through new ways of framing, organizing, and doing. In the second section on transformative social innovation, we will show dynamics, especially between the top-down planning processes of the city and the bottom-up planning approach of the citizens of Vauban. In the third section, on agency, we will explain the transformative social innovation processes observed in Vauban and describe their impacts on the quarter’s structures and activities in the fields of internal and external governance, social learning, resourcing and monitoring.

5.1.1 Development and data of Vauban

Based on the many available (re)sources on Vauban, the following sections first introduce the chronological development of the Vauban quarter. Secondly, we introduce spatial aspects of Vauban which appear particularly important, because it was intended to realize the sustainable city district of short distances as a sustainability innovation.

5.1.1.1 Timeline of the development of Vauban⁵

The development of the Vauban quarter as it exists today is a story over more than two decades, with manifold actors and interlinkages between various events. The Vauban quarter has been created through the conversion of former military barracks (originally developed as a military base in 1936; occupied by French troops after 2nd World War, thus named after French military architect

⁵ Sources: <http://www.vauban.de/en/topics/history/281-timeline-abstract>; SUSI reader, 5th edition 2002; <http://www.syndikat.org/de/projekte/susi/>, <http://www.vauban.de/themen/buergerbeteiligung/31-vauban/energie/279-susi-s-%C3%B6kokonzept-von-1995>, <http://www.vauban.de/themen/geschichte/220-geschichte-2008-bis-2013>

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Sebastien Le Prestre de Vauban) into a civic housing area. The French military left Germany in August 1992, after the end of the Cold War and the presence of the Allied forces in Germany.

The well-educated, collegiate and ecological milieu of Freiburg was in need of housing. The expected liberation of the French Vauban barracks at a central location in Freiburg generated desires and creative ideas. The time span until the sale to the Federal Republic was settled could be used for establishing a professional forum, the *Forum Vauban*, from within the citizenry from 1994 on. This forum started to develop serious urban planning concepts. At the same time, the area was occupied by a decent number of trailer homes, and a youth centre was taking space in one of the former military caserns. When the Federal Republic sold an area of 34 ha to the city, another part was immediately bought by the SUSI initiative, another by the student office, which created student homes there (4 ha altogether).

Building activity in the Vauban district started in 1996 and was planned to be finished in 2006. But in fact, the last building complex has only been completed in 2015. During the planning and building process, both the municipality and the citizen-lead initiative '*Forum Vauban*' received also external funding (see chapter resources) because of the sustainable and participatory character of the project.

The following table introduces important milestones of the district's development in terms of setting a framework for co-housing, and parallels them with the emergence of the housing cooperative GENOVA. Of course, the development should be looked at in relation with "external" events framing it, such as related resolutions of the Freiburg City Council, the publicity Vauban received in the international press, and global events of political importance.

Table 5.1: timeline and development of Vauban (by Andrea Philipp)

Year / period	Important activities/changes/milestones in local case Vauban	Important activities/changes/milestones in GENOVA	Important changes in context
1938	Foundation of Schlageter military base in Freiburg		
1945	French military takes over the area as military base, renaming to "Vauban" after a French military architect		End of World War 2.
1973			Strong environmental movement is growing in Freiburg, partly because of resistance against the nuclear planned power plant in Wyhl near Freiburg on the river Rhine. Resistance for years taking the form of law suits, squatting the building site, founding a radio broadcasting channel, demonstrations.
1983			30.000 people demonstrating against the nuclear power plant. In 1995 it was finally decided to not built the plant, the area is a nature reserve ever since.
1989			End of the Cold War, Allies are leaving their military bases in Germany.
1990	As French troops plan to leave the barracks, ideas surface for the creation of an eco-district and of a citizen-organized independent housing		German reunification

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	project (SUSI).		
1992	Soldiers move out and the area becomes property of the Federal Republic of Germany. In an interim phase until 2003, the Federal State of Baden-Württemberg uses some of the buildings to host asylum seekers.		Freiburg city council decides on low-energy housing standards for new buildings in Freiburg (in support of their climate protection strategy and targets)
1993	SUSI supporters squat one of the barrack buildings ("Haus C") and later receive an official rental contract. The former military canteen "Haus 37" is used as canteen for the workers and as a kindergarten		Freiburg city council decides to create a new district with civic participation
1994	Freiburg citizens interested in settling in Vauban try to have a stake in the planning process, thus establishing the Vauban Forum as an association (<i>Forum Vauban e.V.</i>) and the citizen-organized Independent Housing Project LLC (SUSI GmbH)		Freiburg municipality buys the area of 34ha from the Federal Republic of Germany. An urban planning competition is launched, with a winning masterplan by Kohlhoff/Billinger/Luz, a joint working group of architects, engineers and open space planners
1995	SUSI buys 4 buildings on 1.5ha of land from the Federal Republic of Germany Start of the demolition, and renovation work respectively		Establishment of extended participation rights for Vauban residents and creation of a specific city council working group (GRAG)
1996	Car-free mobility suggestions of <i>Forum Vauban</i> are taken up by the municipality. Demolition of "Haus 37" is prevented by intervention of <i>Forum Vauban</i> – city agrees to use the building as a district center. SUSI's eco-concept is awarded the annual Environmental Prize of the city of Freiburg		The municipality publishes the district development plan and organizes a campaign "Wohnfrühling" together with <i>Forum Vauban</i> . The concept of Vauban is awarded 'Best Practice' at the United Nations Human Settlements Programme's Habitat II conference.
1997		Foundation of GENOVA housing cooperative	
1998	First construction phase begins - first residential buildings and roads get built (development of the district in 4 timely subsequent sections). <i>Vauban Forum</i> organises extended participation rights for its residents, and conducts research projects, including one for the EU. Establishment of the association "Autofreies Wohnen" (Car-free Housing) to support the suggested mobility concept. Municipality and <i>Forum Vauban</i> organize participatory workshops for the design of the open public spaces.	Registration of GENOVA at the Local Court of Freiburg (Nr. GnR 103) Start of construction of first complex of 2 buildings "GENOVA"	
1999	The first Vauban residents move into their new homes <i>Karoline-Kaspar</i> primary school starts teaching Vauban children	One of the first GENOVA buildings serves as „pilot model building“ for the LIFE project of <i>Forum Vauban</i> First tenants move into "GENOVA I" with 36 flats, guest room, and community building	
2000	The <i>Vauban Forum</i> participates in the "StadtVisionen" ('Envisioning the City') conference and is assigned the responsibility for "Quartiersarbeit" neighbourhood work		The highly energy efficient solarplus settlement adjacent to Vauban is exhibited at World Expo Hannover

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2001	Second construction phase begins “Haus 37” future district centre is renovated with voluntary help of Vauban residents Inauguration of “Quartiersladen” organic district supermarket in Haus37, run by an association	Finalisation of “GENOVA II”, the second complex of two buildings, with guest room and community room Opening of three shops (bakery, second-hand shop, “Quartiersladen” organic district supermarket which is run as a cooperative)
2003	“Drei5Viertel” joint initiative of GENOVA and SUSI to protect and renovate 3 of 5 remaining barrack buildings for affordable housing fails, since the municipal deadline for presenting a financing concept cannot be met	
2004	The City continues with the disputed demolition of barracks Inauguration of the combined heat and power plant, sustainably fuelled by wood chips The Vauban Forum association is forced into bankruptcy by the EU	
2005	More than 4000 residents live in Vauban Establishment of “Stadtteilverein” district association (as follow-up organization of <i>Forum Vauban</i>), coordinating the “Quartiersarbeit” neighbourhood work from 2006	214 GENOVA residents - 94 children, 111 adults<60years, 9 adults>60years
2006	Inauguration of the tram line to Vauban, with 3 stops inside the district	
2007	Inauguration of the district center in the renovated “Haus 37” run by the association “Stadtteilzentrum Vauban 037 e.V.” ⁶	The City of Freiburg officially uses the term “Green City” in its marketing strategies
2008	Appeal proceedings by EU against the Vauban Forum association are dismissed, as no fault could be found Most of Vauban is developed, except for the central “M1” property at the entrance of Vauban – when rumors spread about plans for a single block office centre. Protest forms amongst the citizens. Stadtteilverein organizes a workshop to collect alternative design ideas for M1, promotes them in a campaign. “Quartiersladen” supermarket expands in larger shop area and is converted into a cooperative	
2009	Third construction phase is completed: Vauban gives home to about 5000 residents, 38% of which are children and youth; 420 of the more than 1000 households are car-free The ‘Rhino’ collective of trailer tenants occupies the property M1 The district acquires an efficient gas-generated combined heat and power plant	Vauban is featured on front page of New York Times: “In German Suburb, Life Goes On Without Cars” Foundation of eco-business “Cluster Green City Freiburg”
2010	‘Quartiersarbeit’ organizes „Vauban 10 plus”, a series of workshops to discuss the development of the district	Vauban is exhibited as model eco-district during World Expo Shanghai
2011	“Rhino” collective is evacuated from the M1 area by police force, but temporarily hosted by the	Start of charity project “GENOVA kindergarten in India”

⁶ <http://www.haus037.de/> 2016-01-26

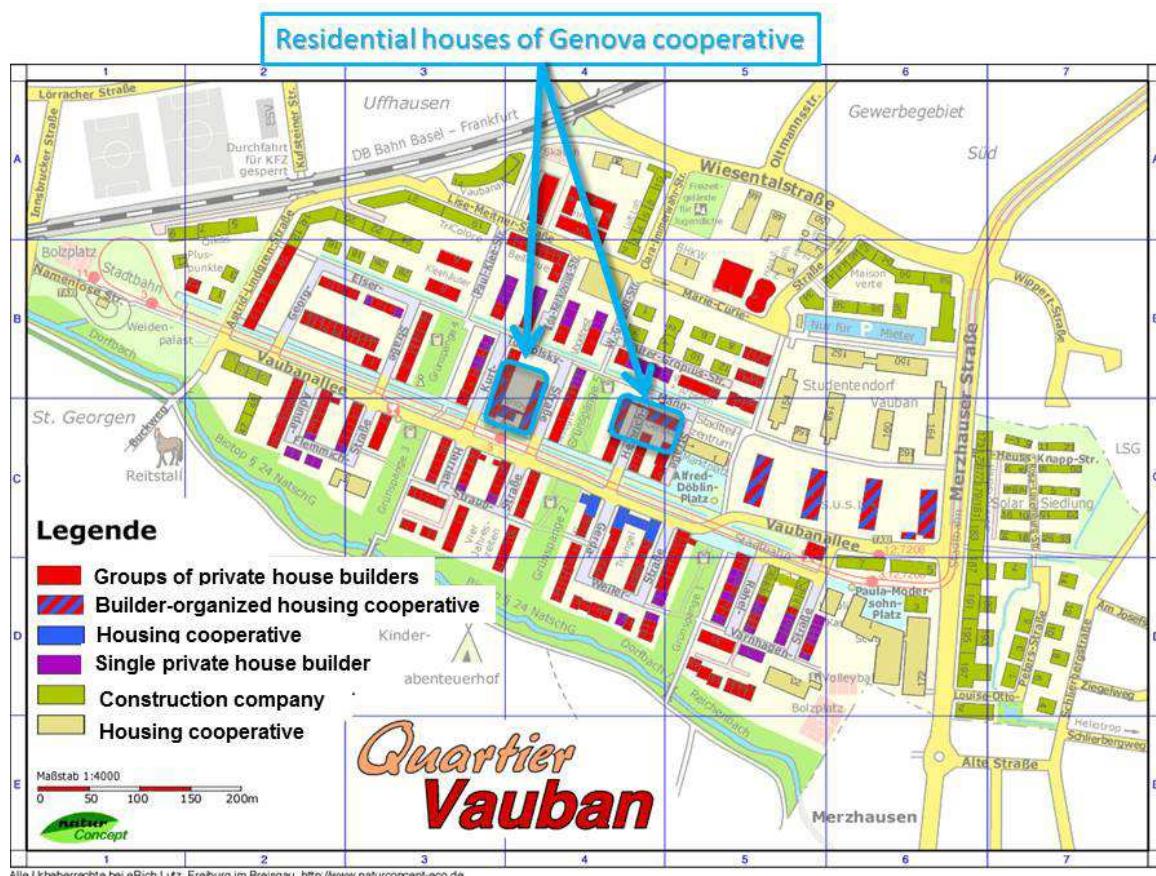
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	'Vaubanaise project', one of the housing cooperatives in Vauban (see table 5.2) The city-owned construction company starts construction works for hotel and office/apartment building on "M1"		
2013	Opening of "Green City Hotel Vauban" as an inclusive hotel, employing handicapped people.		German President Gauck and a delegation of about 150 ambassadors visit Vauban
2015		GENOVA cooperative has 384 members, but a reduced number of residents, and varied age structure, tending towards elderly persons: out of 182 GENOVA residents - 70 are children, 95 adults<60 years, 17adults>60years More than 90% of GENOVA residents do not own a car Financially balanced – no new investments needed. Investment capital 7,33 Mio	

5.1.1.2 Spatial differentiation: Vauban as a cluster of multiple forms of housing

The following map gives an impression of Vauban, its population density, green areas and infrastructure. It allows for an overview of the different forms of ownership and visualizes the majority of cooperatives and *Baugruppen* projects over those of real estate developers. The term „*Baugruppe*“ can be translated into English as an **organized group of private housing builders/owners or of a cooperative**- the planners are the future residents. For reasons of simplicity, we will use the German term “*Baugruppe*” from now on. Most of these houses – red in the map – were built by privately organized *Baugruppen*. Housing cooperatives that were not necessarily motivated by the residents are marked in blue. The blue-red-striped houses have been built by residents-organized housing cooperatives, like GENOVA, which is explained in detail throughout the report.

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Graph 5.2: map of ownership structures in Vauban (by Rich Lutz, naturconcept-eco.de, added by Iris Kunze)

5.1.1.3 Socio-demographical data

Vauban has a much smaller share of single person households than the rest of the city (36,6 % as compared to 52,2 %). This is probably due to the relatively high share of children in Vauban (inhabitants below age 18: 28,1% as compared to 16,2%) and family households (36,3 % as compared to 17,3 %). It has further to be noted that the inhabitants of the student dormitories are counted among the single person households, even though these households only consist of small rooms with external kitchens. Actually, these would have to be counted as shared flats warden (Interview VB1). So there is a high number of shared flats and thus, shared usage of living space.

In two regards, Vauban is a young city quarter. The number of inhabitants over 65 years of age is only 2,3% (as compared to 16,8 % in the rest of the city). The number of inhabitants with foreign origin officially is slightly below that of the whole city, but according to one of our interview partners (Interview VB1) there is a high number of inhabitants with migration background who are actively involved as citizens in the quarter's daily affairs⁷.

⁷ the social worker, employed in Quartiersarbeit from 2000 till 2015 had a Spanish migration background

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5.1.1.4 Vauban – a framework of housing projects

Vauban hosts a number of co-housing cooperatives, private initiatives for housing and other projects and cooperatives dealing with various aspects of daily life. The participatory framework established in Vauban has allowed these multiple forms of ownership to emerge.

A particular feature specific to Vauban is the already mentioned "*Baugruppe*", an association of future home (here: apartment) owners which get together in the planning phase for implementing a common housing project. Cost savings (taxes, construction and infrastructure costs) are the main benefits of this practice for "*Baugruppe*" co-builders, but many groups have also been established around shared ideas on sustainable construction, community life etc.

The table below gives an overview of some of the most noteworthy projects and initiatives, their actors, intentions and the innovations brought about by them. The table is organized along the three categories of co-housing cooperatives, the "*Baugruppen*", and further initiatives which provide relevant infrastructure to the Vauban district and its citizens. However, the list is non-exhaustive: many more such projects exist, such as the "*Baugruppe Vogelnest*" (8 builders, finalised 2006), "*Baugruppe14*" (14 builders), "Quartett", "Momo", as well as the service centre "Amöbe" which provides studios, offices and workshops for different companies. Furthermore, we list those non-housing projects of Vauban, which are relevant for the co-housing character and the sustainability dimension of the model of Vauban.

Table 5.2: co-housing and other important projects in Vauban (by Andrea Philipp)

Name and location	Founding process, initiators, background	Members and political activities	Innovations, form of ownership structure and co-housing governance
COHOUSING COOPERATIVES			
SUSI e.V. ⁸ Registered association Vauban-Allee 2a	The "Self-Organized Independent Settlement Initiative" SUSI was founded 1990 by a group of students, single parents and unemployed who aimed to prevent the barrack buildings from being demolished, and convert them into living space for people with low incomes. With self-help and support of friends and experienced craftsmen, the members succeeded in renovating all 4 buildings which they had bought from the Federal Republic of Germany in 1993.	50% students (as a condition for a loan given by Studentenwerk), but also architects, teachers, craftsmen, unemployed, etc. living in SUSI as singles, in families or - like the majority - in shared flats of up to ten rooms. SUSI runs a café, a library, different workshops; it has initiated the day care center in "Haus 37" and cooperated with GENOVA for the Drei5Viertel project to renovate further barrack buildings.	Buildings are self-administered by SUSI tenants / the members' assembly and specific working groups (e.g. coordination of construction); all resident members commit to contribute 105 hours of self-help ("Muskelhypothek"). Ownership is with SUSI Ltd. (with SUSI members as shareholders) and "Mietshäusersyndikat.", a cooperative holding company which steps in to ensure that the flats remain common property and will not be sold at a later stage.
GENOVA eG ⁹ Registered cooperative Lise-Meitner-Straße 12 (Office)	GENOVA was established 1997 (with 384 members today, incl. non-residential) as a social project, open to residents of different ages and cultures, including such with handicaps. 2 blocks of 2 buildings each (finalised 1999/2001) with 73 flats (49 rental, 24 freehold flats) plus 2 guest apartments, 2 additional community buildings,	GENOVA has 182 residents – among them 70 children, 95 adults<60 years, 17 adults>60 years. GENOVA inhabitants established a charity project for children in India, teamed up with SUSI for the Drei5Viertel project to renovate further barrack buildings	Cooperative as ownership structure; all residents are co-owners. Initial deposit of 35000€ can be paid in 2 parts (or over a longer period upon request - see example of Kitty Weis) Reduced rental prices for elderly people from 66 years on and for long-term/ founding members from

⁸ http://susি-projekt.de/?page_id=15, <http://www.freie-radios.net/portal/content.php?id=20492> [3]
ab 02:50min

⁹ www.genova-freiburg.de

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	three shops. Ecological construction (solar heating, wooden facade, wooden floors, no PVC etc.)		10 years membership on and low income residents
VAUBANaise e.G.¹⁰ Registered cooperative Lise-Meitner-Straße 14	Project of the German cooperative ÖKOGENO which engages in housing and photovoltaic projects, finalized 2013	5 floors, 3 units for people with care needs, Milan association (non-registered) with 15 adults (30-77years and 10 youth (1-20years) moved into 10 units of VAUBANaise Wohnen-Leben-Plus e.V. organizes a community flat „VaubanaisePLUS“ with medical assistance to handicapped people	Cooperative members have common ownership. Intergenerational, integrative social housing project with different tenants
Drei5Viertel i.G.¹¹ Cooperative in process of foundation	Housing cooperative with about 70 members started 1993 as a joint initiative of GENOVA and SUSI in order to protect 3 of 5 remaining barrack buildings from demolition	Concept to renovate 3 of 5 remaining barrack buildings for affordable housing, 45 apartments planned	Not realized! Initiative failed to meet tight municipal deadline for proposing a financing concept, and barracks were demolished
“BAUGRUPPEN” WITH PRIVATE AND SINGLE OWNERSHIP STRUCTURES			
Wohnen&Arbeiten¹² Walter-Gropius-Strasse 22	Co-housing project, started 1996 by a group of 16 private builders/owners (“Baugruppe”) initiated by architect Michael Gies and biologist Jörg Lange, finalized 1999	“Living & Working” modular construction system provides 20 units for 37residents, in a mix of apartments and office space for 5 companies (owned by the residents). Ambition to realize apartment blocks in passive house standard and with innovative sanitary concept (zero waste water house), received funding from German Environment Foundation DBU for scientific support from Fraunhofer ISE Institute of Solar Energy Systems	Association of owners share ownership. During construction phase, a legal association of builders "Wohnen & Arbeiten Bau GbR" was founded with a management board of five members to coordinate the project.
WOGE e.V.¹³ Registered association Heinrich-Mann-Str. 20	WOGE association was founded to establish a housing community for demented persons, and is member of both Freiburger Modell, an umbrella association for similar projects, and Miethäusersyndikat association	WOGE housing community in “Sonnenhof” building was occupied in 2009, offering healthcare for 10 demented persons, organising a Café on Saturdays for demented persons and their relatives	The WOGE tenants (or their legal representatives) constitute an association of buyers (“Auftraggebergemeinschaft”) which have domestic authority, deciding about selecting tenants, interior design, contractors, use of budget
Kleehäuser¹⁴ Paul-Klee-Str. 6,8	Co-housing project initiated 2004 by Baugruppe of 24 builders, modular system allowing flexible options for apartment construction, finalised 2006	25 apartment units: 14 owned flats and 10 rental flats for about 73 residents plus 1 unit used as 2 holiday apartments. Building complies with passive house standard or “zerohouse” (reference to 2000Watt society), inspired and supported by “Wohnen &	Association of owners share ownership. Intergenerational project of residents from 0-80 years

¹⁰ <http://www.oekogeno.de/content/projekte/vaubanaise.aspx>

<http://www.mitundfuer.de/index.php/projektgruppen/milan-vaubanaise>

¹¹ <http://www.vauban.de/themen/geschichte/235-projekt-drei5viertel>

¹² <http://www.passivhaus-vauban.de>

¹³ www.wogevaaban.de

¹⁴ <http://www.kleehaeuser.de/>

transformative social innovation theory

		Arbeiten"	
VIVA2000 ¹⁵ Lise-Meitner-Str. 3	Co-housing project by "Baugruppe" Bellevue, finalized 2002	Living space for 15 families, and 1-2 guests in holiday apartment (since 2009) Hosting the "Backhausinitiative" project for "open bread making" in wood oven	Association of owners who share ownership.
OTHER INITIATIVES			
DIVA GmbH&Co. KG ¹⁶ Limited partnership with a limited liability company as general partner Lise-Meitner-Strasse 12	DIVA was founded after the joint initiative of <i>Forum Vauban</i> and "Take Five" in 2003 prevented the demolition of the former barrack building "Haus50" (renovated by the city in 1993). DIVAs idea was to use the building for a mix of local offices, studios and workshops	About 30 tenants of different professions: musicians, architects, consultants, craftsmen, teachers, artists, IT specialists etc.	Self-administered house of services, arts and craft, with focus on tenants with a relation to Vauban
Autofreies Wohnen e.V. ¹⁷ Registered association Alfred-Döblin-Platz 1 (office)	Association founded 1998 by members of <i>Forum Vauban</i> to support the suggested mobility concept by <i>Forum Vauban</i> , with 46 members (2013)	Vauban tenants or home owners without cars file a contract with the association and pay 3,700€ plus 15€ annual administrative costs. In return the association provides space for further parking facilities	Membership association, but contracts with car-free Vauban households
Villaban ¹⁸ with Restaurant Kantine ¹⁹ Marie-Curie-Straße 1	Mixed-use building with apartments, workshops, offices etc. around a 10*10m covered patio	Villaban hosts a bike shop, a carpenters' workshop and the "Kantine" restaurant which is a member of Slowfood. Currently, Kantine organizes joint cooking/ eating events with refugees	Wooden structure over 3 floors; common patio provides space for exchange and interaction between the tenants, and visitors/customers
Quartiersladen e.G. ²⁰ Registered cooperative Vaubanallee 18	The local organic shop was started by committed Vauban residents as an association in 2000, renting premises in "Haus37" district centre. After removal of "Quartiersladen" to larger space at Vaubanallee, it changed its legal status to a registered cooperative	Quartiersladen cooperative supermarket for local organic supply is supported by about 440 member households (figures of 2008), but is open to non-members as well. Offer has expanded to a full-service supermarket incl. wine.	Cooperative is funded by members which pay an initial amount of 153€ and 5€ per month. In return, they have 15-20% discount on the products while regular customers pay the full price. Members commit to 2 hours of voluntary help in the shop per year
Kinderabenteuerh of Freiburg e.V. ²¹ Registered association Alfred-Döblin-Platz 1 (office)	The association was founded 1996, initiated by parents in order to set up a children's farm playground	In 2015, 353 member families (representing about 1,100 persons), activities in animal-keeping, nature education and handcrafts for children from 6-14 years, but also their parents (and other adults)	Kinderabenteuerhof offers regular open activities free of charge as well as paid workshops with registration

¹⁵ <http://www.bg-bellevue.de/>

¹⁶ <http://www.diva-freiburg.de/>

¹⁷ www.autofrei-verein.de

¹⁸ <http://www.zmh.com/holzhaus-objektbau/objektpotaets/detail/villaban-freiburg.html>

¹⁹ <http://www.kantinefreiburg.de/>

²⁰ <http://www.quartiersladen.de/>

²¹ <http://www.kinderabenteuerhof.de/>

transformative social innovation theory

5.2 Emergence of Social Innovation in Vauban

In terms of social innovation, Vauban is the creative 'product' of a strong environmental and alternative movement in Freiburg. It can be seen as a unique and successful citizen-supported initiative to create an ecological, socially just city quarter with a completely new level of citizen involvement in the course of planning and building processes. In the following section we will explain the emergence of the citizen initiatives, their interlinkage with the city planning process, and the resulting manifestations in the organizational structures.

5.1.2 Aims and values of Vauban

Vauban has been a collaborative project of the City of Freiburg on the one hand, intending to plan a new district to meet the extremely high demand on living space in Freiburg and the *Forum Vauban* on the other hand, formed by engaged citizens who had the vision of an ecological, socially just and self-organized city quarter with lots of green space and affordable housing. An interviewee said she was motivated to move into Vauban because the concept fit her personal needs: car-free, ecologically aware, with more space for kids, self-organized, open-minded, based on a spirit of innovation, including building in cooperative ways, and surrounded by like-minded, dedicated people with experience in building houses (Interview VB2).

Forum Vauban united a wide range of different interest groups: from approaches of squatting, living in trailer homes, communal living approaches to creative milieus of craftsmen as well as middle-class, educated families looking for a healthy neighborhood to raise their children. Of course, there were also dissensions amongst the aspiring Vauban residents about what the district should become. While some followed a radical path of squatting houses and initially moved their trailer homes illegally onto the free area left behind by the military. –, others wanted to maintain good contacts with the city council. Finally, it seems that the different groups involved in the design and development of Vauban managed to cooperate in a productive way to realize this district project due to a great balancing act between innovative visions and the reality of existing city planning laws. The diversity of the district map (see chapter 5.1) mirrors the different interests and groups and their 'areas'. *Forum Vauban* was aiming at a green, car-reduced district with eco-housing standard, and even more importantly: affordable housing, planned and managed by its residents. Next to the ecological aims, the motivation of Forum Vauban activists was to create a district of higher quality of life in social aspects, especially for children for example by reduced traffic und numerous 'play-streets' with a tempo limit of 7 km/h. Green and also rural aspects like the animal adventure farm for children had a high priority for parents.

The City of Freiburg as the owner of the territory of Vauban is responsible for its planning and opening up for development. In the course of this, social and ecological goals and standards have been set from the beginning as part of the official guidelines by the City of Freiburg: compulsory low energy standard for new buildings, connection to the tram network until 2006, rain infiltration on the very territory, socially mixed inhabitant structure and a priority of giving away land to private builder-owners and collective building projects (Life-Projekt)²². However, aims and values were not always set unanimously within the City (councillors and responsible departments).

²² <http://www.vauban.de/themen/buergerbeteiligung/238-das-life-projekt>

transformative social innovation theory

5.1.3 The emergency of a citizen movement for planning the district

At the moment when the impending departure of the French military troops became public in 1990, there was already a broad environmental network and movement in Freiburg, mainly around the resistance against the planned nuclear power plant Wyhl. And years before the city of Freiburg started the planning competition for Vauban, the initiative SUSI was set up by students at the University of Freiburg in order to claim a stake in the development of the area. Some SUSI supporters squatted the military barracks and later received a permanent rental contract in 1993 for the land and could buy four barrack buildings from the German State real estate trust after intensive negotiations.

With enough time to perform till 1994 the citizens' initiatives constituted themselves in the context of *Forum Vauban* through which they were able to make themselves heard with a clear voice. The *Forum Vauban* was based on civic engagement and served as an open forum. In 1994 it started to invite interested citizens to get together around issues of developing the quarter. Vauban started off with new ways of knowing. Citizens demanded to be informed about and to participate in drafting the plans of rebuilding this new district on a former military territory. The *Forum Vauban* invited, organized, and coordinated professional expertise around planning, ecological housing, funding and forms of ownership brought in by interested citizens. This could be realized because the city of Freiburg agreed and provided a frame and organizational innovations to cooperate with the citizen-led *Forum Vauban*. From this platform emerged various building groups, some of which came up with the idea of cooperative building (Interview VB1).

Because of the tight housing market in Freiburg, these initiatives quickly gained momentum and sympathies inside the population. At that time the internet was not a common means of exchange yet. Three aspects seem to be relevant in the process of formation of the initiatives of Forum Vauban and SUSI: First, face-to-face meetings, for instance at demonstrations and regular meetings of environmental groups like Greenpeace; second, certain locations where people met, for instance at the student board office at the university, where the office of SUSI had been installed since 1992. And third, in a later phase, when the planning process had started, print media for information and exchange became important platforms for education and exchange, namely the 'Vauban actuel' district magazine, which is published four times a year since 1996.

Activists in *Forum Vauban*, including students of architecture, initiated and facilitated a professional process in the course of which the different interest groups came up with a joint development and utilization plan. First, this process was realized on a voluntary basis. However, after official registration as an association *Forum Vauban* succeeded to obtain various funds (see chapter resources). It is quite remarkable how the activists kept up their motivation without being present at the intended location of their projects over a period of four years (from 1992 to about 1996 when concrete planning finally became possible), especially since a number of conflicts and set-backs happened during this period. The Vauban website explains:

„The combination of idealism, expertise and (limited) economic possibilities was a cause of Forum Vauban's success. The participative process, combined with a PR campaign, mobilized the first new inhabitants to get together, to bring in their ideas, to form building communities and thus, to become active citizens of Vauban. The Forum actively helped partners to come together: citizens, interested

transformative social innovation theory

builders, architects and engineers, experts in financing, people with experience in community building and others.”²³

The citizen-initiative was the driving force in establishing the participatory planning and “learning while planning” methods.

„One has to say that the [municipal] construction department wasn’t really used to citizen involvement. But this has meanwhile changed: performances on the topic citizen involvement take place. Nevertheless, dependent on the department and on single co-operators they aim more or less at public information rather than real participation in the sense of influencing the decision making process “ (Interview and e-mail feedback VB1)

5.1.4 Participatory planning process: City of Freiburg and Forum Vauban

When the City of Freiburg bought 34ha of the 41ha large area inside the city, the responsibility and the chance of developing a new district emerged. The city planning council started an architectural competition for a city quarter with mixed utilization. Due to the successful formation process of SUSI and Forum Vauban, the urban planning institutions found themselves confronted with a civic actor they could not ignore. The *Forum Vauban* was officially assigned agency for extended public participation and for the neighbourhood work, and was invited to delegate one advisor to the ‘Vauban City Council working group’ (GRAG).

In hindsight, events alongside the planning competition are considered as having been the starting point for the emergence of an independent project working group of the city of Freiburg, which was separated from the usual municipal hierarchies and directly assigned to the head of the construction department. This opened up possibilities for the representatives of the citizenry to directly contribute to the work of this group. It allowed for an „early and extended participation of citizens, for continued participation after conclusion of the district development planning process („Bauleitplanverfahren”), and for organizing workshops for co-creating the design of streets and the open green spaces in between...”²⁴ Another small example – in this case with a clear message in terms of gender justice – is that streets are mainly named after famous women (for instance Astrid Lindgren, Marie Curie, Paula Modersohn, but also regionally engaged, less known women).

In the process of designing the Vauban quarter, an innovative approach has been chosen from the beginning for framing this experiment of urban development. The citizen-lead *Forum Vauban* has been at the table from the very start as a full-fledged negotiation partner who co-decided about buildings and design. The city itself defined certain criteria of social innovation and sustainability from the start of the planning, tender and design competition processes itself.

With the principle of „learning urban planning“, the city of Freiburg practiced a planning method which was able to react to new developments quickly and flexibly. This allowed for “enlarged” citizen involvement processes going far beyond the usual demands of the construction law. In result, multiple suggestions from within the citizenry were included into the planning process. The inhabitants also experienced this kind of “learning urban planning” as a very positive method,

²³ <http://www.vauban.de/themen/mobilitaet/194-verkehr-kapitel-4>

²⁴ [<http://www.dbu.de/media/240506043601da6f.pdf>]

transformative social innovation theory

allowing them to influence the City's conception of the Vauban quarter. "It allowed for movement", recalls an interviewee (Interview VB2).

5.1.4.1 Residents plan their houses: process of "Baugruppen"

The Forum also supported future inhabitants with finding suitable building groups (Sommer/ Selle et al. 2014: 95). The participatory vision was also implemented with regard to the practice of building in *Baugruppen*.

„As a building community (Baugruppe) one saves when buying land. The tax on purchase of real estate has to be paid only for the price of the estate (not for the building, EF). Another saving happens when the members of the group agree upon a primary structure predefined by the architect but still leaving room for individual flexibility.“²⁵

This new way of framing and organizing the planning process made room for a great variety of ownership models: The territory was divided into small parcels of land which were given preferably to single home owners and co-housing groups ("Baugruppen")²⁶. Some of the former barrack buildings previously used by the French army are now hosting student dormitories run by the university owned student office ("Studentenwerk") which is governed by the Federal State of Baden-Württemberg. Furthermore the Freiburger Stadtbau (social housing company) and investors (Green City Hotel Vauban etc.) own buildings. The structures of participatory planning created during the planning phase are still visible in the Vauban quarter today, both in the design of garden spaces which are taken care of by the inhabitants themselves, or in initiatives such as the community "Wandelgarten" (transition garden). Besides, the overall design principles are of course also visible inside the individual co-housing projects.

5.1.4.2 Participatory and ecological planning of public spaces with residents

The space between the houses is generally not dedicated to traffic, but to green areas. The so called five "Grünspangen" (see map in chapter 5.1) have only been conceived in 2001 till 2006 after the first inhabitants had moved in, in order to let them express their ideas on the base of living on site. The only conditions by the City, as the coordinator of the planning process, was that an urban planner and a social worker were engaged together, and that a playground for small children, a water pump and seating accommodations were provided. In this regard, specific architectural templates have been developed which allow for saving and flexibly using the available space, thereby turning Vauban into the most densely populated quarter in Freiburg, even though the abundant green areas and the small number of roads create a different impression. The semi-public spaces (such as access-galleries, community gardens and rooms) were created mainly by GENOVA- and other cooperatives as well as Baugruppen-projects.²⁷

During the overall design phase of the quarter, existing natural elements have been integrated from the beginning. The village creek and the vegetation at its shores could be preserved. The 60 years old tree population was mapped, and all valuable trees were conserved. The specific quality

²⁵ <http://www.kleehaeuser.de/kontakt.shtml>

²⁶ [source Quartier Vauban, Municipality of Freiburg]

²⁷ <http://www.vauban.de/en/topics/history/276-an-introduction-to-vauban-district>

transformative social innovation theory

of these old trees for the quarter has been highlighted several times during interviews as being of high value for the inhabitants' identity (survey in Sommer/Selle et al. 2014: 93f).

5.1.5 Cooperative living

Those who finally live in Vauban find themselves in a different context than it is the case in a usual city district, not only in terms of car-reduced mobility and living in energy efficient houses. At least half of the Vauban citizens are co-owners of the multi-household buildings they live in – either in housing cooperatives or private co-ownerships and therefore are active in administrating and caring for their properties collectively. In the perception of some inhabitants the participatory processes set off at the beginning of the experiment are still going on, in a less spectacular, but consistent and routinized way in the individual '*Baugruppen*'. Neighbourly support and collaboration is an aim in itself and thus definitely of higher value than in other districts. However, there is also certain exhaustion or overwhelming with social processes happening, which is why some have also left Vauban again.

The activities of the district's "Quartiersarbeit" - neighbourhood work inside Vauban are much more important than in other city quarters. Even after the completion of the construction of the district, it continues to organize meetings to discuss the further design and development, as well as topics such as the situation of families and elderly people or working with refugees. Also, the rooms of *Haus 37* – Vauban's district center – can be rented cheaply for activities by anyone.

Vauban is one of the most secure quarters of Freiburg. With only 1,6 acts of violence per year per 1000 inhabitants in 2010, Vauban had only one eighth of similar acts as compared to the city average (13,8).²⁸

5.1.6 Energy-efficient housing

In the Vauban quarter, a number of social and technical innovations in the fields of energy and low carbon building requirements have been realized: the municipality of Freiburg introduced a low-energy housing standard for all buildings, namely a maximum of 65kWh/a of the primary energy consumption. As part of this energy concept, PV installations have been realized on the two large car parks at the edges of the quarter, which add to the combined heat and power station supplying the district with electricity and heating (supported by many private solar collectors).

5.1.7 Car-reduced living

Vauban serves as model eco-district and as an example for sustainable, car-reduced ways of living²⁹. Ideas in this regard have first been generated in 1996 and have then been further elaborated in the

²⁸ All percentage figures were solicited from: <http://www.quartiersarbeit-vauban.de/index.php/home/vauban-in-zahlen> and <http://www.badische-zeitung.de/vauban-im-bz-faktencheck>, 01.05.2012

²⁹ 2009 waren von den über 1000 Haushalten waren 420 autofrei."²⁹ 2013 wurden 172 Autos per 1.000 Bewohner verzeichnet.²⁹

transformative social innovation theory

course of *Forum Vauban* workshops – a car-free district has never been brought forward as a serious option. The concept which was finally realized provides that no parking is allowed in most of the housing streets, but only in the commercial area and at the main road of Vaubanallee which is also the axis of the tram line. There are no through roads to connect with the adjacent districts, and a general speed limit of only 30km/h or below. There is a rich net of cycle and pedestrian paths through Vauban. No parking lots exist in front of the majority of buildings. An innovative „deal“ could be concluded in view of car-free living: The question was how to deal with the legally compulsory establishment of space for car parking by each builder-owner without having to use the valuable property for parking lots. So whoever comes to live in Vauban with a car is obliged to buy a parking space in one of the two parking garages between 18.000 and 22.000 €.³⁰ Instead, inhabitants without a car only pay 3.700 Euros to a dedicated association called “car-free living” when moving into Vauban. Out of this money, the association provides a territory inside the district where another parking lot could be built if necessary (Interview VB2; Sommer, Selle et al. 2014). So far this has not been necessary and therefore serves as a green area where urban gardening has created a community garden.

Since the Vauban quarter has been completed, its daily life is characterized by car free mobility, large green areas, relatively low danger for kids to move freely across the whole quarter, and by an important cultural and leisure program. Vauban hosts next to the fundamental consumption services – like a supermarket, a drug store, a bicycle and a computer shop – a particularly high density of services related to sustainable living, be it yoga schools, a so-called repair café where citizens help out each other with technical problems of all sorts, an organic canteen, and various related events, mostly held in Haus 37, the community center.

5.1.8 Co-housing case GENOVA

The cooperative co-housing group of “GENOVA” has emerged as a result of the *Forum Vauban* in 1998. It started off with 60 members. GENOVA can be seen as a positive example of cooperative, participative planning methods in Vauban. The innovative and visionary approach of GENOVA is manifested, for example, in the methods which have been used in the course of the participatory processes. The citizens have been explicitly invited to propose utopian visions of the future and to discuss their potential for implementation with the help of a method called „future workshops“. However, experience shows that a number of problems have only come into being during the phase of implementation, which might result in the need of modifying initial plans. The participatory process at GENOVA therefore has been extended to include the construction phase as well (Sperling et al. 1999). Both constitutional and energy and resource saving materials have been used. An improved low energy standard (below 50kWh/m²a) even undershoots the value prescribed in Freiburg-Vauban by 20% (Sperling 1999). One of the management board-members and two representatives (male and female) of the future inhabitants were directly involved in the decision-making process with a delegate of the architects in the 'leading planning group' - in cooperation with the assembly of the members.

³⁰ <http://www.vauban.de/themen/mobilitaet/195-verkehr-kapitel-5>

transformative social innovation theory

In the planning phase, the aspiring GENOVA inhabitants were able to agree on the distribution of the apartments without an external mediation. The decision process took advantage of the diversity of the members representing different needs: elderly people preferring upper floors, families the ground floor etc. (Interview VB1). Mainly because of financial reasons it has been a declared concern to cater both for people who could afford to buy their own residential property and for those who could not do this. Other decisions that have been taken at the beginning and have proven to be successful ever since were to co-finance guest rooms for two persons, as well as common rooms via the rental prices of the individual apartments.

5.3 TSI dynamics in Vauban

To describe the transformative social innovation dynamics of Vauban, we will follow a chronological order to distinguish the two main stages of Vauban: the planning and building process and the final stage of living in the completed district. Therefore motives of the early pioneers are explained, followed by development dynamics. The planning process was signed by top-down and bottom-up dynamics that have led to innovative practices of participatory planning, nevertheless not without conflicts.

5.1.9 Motives and transformation of Vauban activists

Most of the aspiring Vauban citizens were ready to work voluntarily in the participatory planning processes and to participate in the organization of their co-housing projects. In addition, they were ready to reduce their access to a car in the living area. The motives of the early Forum Vauban activists originated from their engagement in the environmental and anti-atomic movements and were centred around the vision of implementing an ecologically, as well as a participatory and democratically planned district. The motivation for one of the activists to co-found Forum Vauban e.V. was, that “in 1994 [...] this huge opportunity emerged – getting out of the university library, right into the model district directly in front of my house [...]. Cause car-free living, zero energy houses, district composting or façade greening had to be possible in reality as well, after all“ (Interview in Vauban Actuel 1997-5).

The squatters of former times are home owners today who have made investments into eco-houses. **“Idealists have turned into entrepreneurs”**, Vauban inhabitant André Heuss says.³¹ Vauban hosts a broad range of projects and initiatives attracting people with specific motivations, for instance:

„I appreciate that SUSI is a meeting place for traditional craftwork“ (a carpenter in Vauban since 1993, interviewed in SUSI Reader No5, 2002).

A GENOVA member living in Vauban since 1999 with his family says:

“We like the old trees, the SUSI project, the idea of the district house 37, the student residence... and we think that a very tolerant way of being together can emerge here“ (Interview in Vauban Actuel 1999-1)

In view of possibilities for involvement, co-working and the community spirit in GENOVA, he further says:

³¹ „Eine Stadt der Zukunft“ Article in http://www.deutschlandradiokultur.de/eine-stadt-der-zukunft.1001.de.html?dram:article_id=248796

transformative social innovation theory

„Particularly the process of joint designing of the building project: We can co-design the ground plots of our apartments and the facades of the houses. Now we have a working group for building a community flat. Given that also elderly people move in with us and cooperate, GENOVA takes the character of something like a big family. We are currently considering to establish a joint lunch table.“ (interviewed by in Vauban Actuel 1999-1)

5.1.10 Constant development of Vauban by the activists

During the years of planning and building the district, Forum Vauban has organized – and announced in ‘Vauban actuel’ – different kinds of private consultancy services, such as support with financial issues or for saving energy. It made suggestions concerning the concepts on traffic and the water management system. It served as a host for the extended participation activities (after application at the Landesentwicklungsgesellschaft LEG). Forum Vauban received funding by the EU and by the State “German Environmental Foundation” (DBU) for up to 6 staff. Also, it was engaged in numerous cooperations with diverse stakeholders. Forum Vauban has managed to become a widely accepted platform for exchange and cooperation – by both environmental activists and city planners alike – and in result received a mandate in the Vauban city planning council GRAG with the function of officially assisting with the distribution of building lots.

Forum Vauban invited interested citizens to events and workshops for exchanging information between all concerned groups, as well as for bringing in ideas in bottom-up processes (Sperling 2004). An example of such an event is the „Wohnfrühling“ (living spring) campaign in 1996, organized by *Forum Vauban* which served as a platform for public relations and for attracting future inhabitants of the quarter. Surveys were conducted about the mobility concept and other aspects of the designing process. On top of its counseling programs, the Forum came up with informational brochures on various topics such as „Living in Vauban – this is what it can look like when citizens are part of the planning process“ (*Forum Vauban e.V.* 1996b). Still, the work of the Forum Vauban of uniting the different movements, groups and initiatives, interested in Vauban, had to pass numerous breaking tests.

When the majority of the houses were built and residents have moved in and ‘normal’ life started, the engagement for the quarter started to diminish. Still, according to Interviewee VB9, the number of active people in Vauban remained constant. The liquidation of *Forum Vauban* in 2004 was another setback (see chapter governance). In the years from 2000, the newly installed ‘neighbourhood work’ (with Forum Vauban, and later Stadtteilverein as the organizing institutions) had organized several events and assemblies to motivate the residents’ engagement (see chapter on agency).

After the joint project of building the district has been completed, a differentiation process can be observed. The activities of Vauban residents have spread out to a large variety of different projects. The activities are happening either in local groups with one of Vauban’s co-housing initiatives as ‘hosting space’ like supporting refugees with rooms for German lessons (GENOVA), the urban gardening at the tram station in Vauban (Wandelgarten) or the ongoing work of turning Vauban into an barrier-free quarter accessible with wheel chairs and other handicaps³² or to improve the

³² <http://www.badische-zeitung.de/freiburg-sued/der-lange-weg-zum-stadtteil-fuer-alle--114714291.html>

transformative social innovation theory

traffic situation especially crossing the bigger road to schools and the city. Second the politically active people in Vauban have formed numerous interest groups with relevance for the entire city of Freiburg and beyond, independent from Vauban as a 'local spot' (website Vauban).

5.1.11 Top-down meets bottom-up planning

The process of participatory and citizen-lead planning has caused a number of unforeseen and innovative dynamics. These dynamics developed between the two most important groups of social actors: the City of Freiburg, including political decision makers and the planning department on the one hand, and the citizen initiatives which had become a strong and professional force, concentrated in the "*Forum Vauban*" on the other hand.

The specific character of the development of the city quarter of Vauban has its decisive cause in its very beginning. A civic forum was initiated to work with enough time ahead of the starting date of the project, the goal of which was to create ecological living space based on the principles of social justice and self-organization. In this situation, the citizenry was able to coordinate the project in a way that allowed for creating a whole city quarter with 5,500 inhabitants as a citizen-lead process. The second party was the administration of the City of Freiburg, which opened up its existing procedures for the citizens' initiative, thus abandoning the usual top-down planning practices for setting up new city quarters. The resulting process combined top-down and bottom-up planning in multiple aubanul ways. In result, many unusual building projects emerged while the city could benefit from the creative, voluntary power of the population. However, the quarter has also seen a number of serious conflicts.

In more detail, the dynamics created by the existing constellation of social actors looked as follows. When the City of Freiburg decided to build the new district in 1993, the citizen-lead initiative of *Forum Vauban* had already been active in setting up their plans and visions about how to build the district in a "green", sustainable and participatory way. After the necessary financial means had been provided by the state (see chapter on resources), the processes of negotiation between the urban planning department and the citizen-lead initiatives started. The City of Freiburg agreed to invest an unusually high amount of money into the participation process (see chapter on resources). With additional funding raised by the *Forum Vauban* registered association, events and speeches on topics of interest for potential future settlers of Vauban were organized. The events successfully brought together interested future home owners and helped them to organize themselves in co-housing groups (*Baugruppen*) according to common interests with regard to construction and housing types.³³

The SUSI initiative and the student office of the state university renovated the old barracks, in contrast to the city who demolished all existing buildings. Only through citizens' initiatives could two houses be renovated on the area which was in responsibility of the municipality: first, the so-called „Haus 37“, which is serving as District Community Centre today, hosting the offices of „Quartiersarbeit“, amongst others; and secondly, the former building „Haus50“, which was converted into the DIVA "House of Services, Arts and Crafts", operating since 2004. Another joint

³³ [see interview Jörg Lange from 01:30h]

transformative social innovation theory

initiative of SUSI- and GENOVA-stakeholders for renovating three further barrack buildings failed and the buildings were demolished³⁴.

5.1.11.1 Co-learning process of city and citizens between collaboration and conflicts

SPG 24: There was an intensive local participation. Without the pressure of the people on site onto politicians and administration, much less could have been achieved. (original: „Es gab eine intensive Beteiligung vor Ort. Ohne den Druck der Leute vor Ort auf die Politik und Verwaltung hätte man nicht so viel erreicht.“)

SPG 14: The process of implementation was exemplary. And if the city had given more support, it would have been even better. We have made a lot of bad compromises (original: „Die Umsetzung – der Prozess war beispielhaft und wenn die Stadt besser mitgezogen hätte, wäre es noch besser gewesen. Wir haben viele Kompromisse auban müssen die schlecht waren.“)

.SPG 6: What I like less is that it was hard to push certain concepts against the city administration. This has cost us a lot of time and energy. There have been only very narrow majorities in the city council. (original: „Weniger gut finde ich, dass Konzepte sehr schwer gegen die Verwaltung durchgesetzt werden mussten. Dies hat viel Energie und Zeit gekostet. Es gab nur knappe Mehrheitsentscheide im Gemeinderat.“) (Interviews in Sommer/Selle 2014: 96)

“I personally regard the 1996 publicity campaign which saw the City and the Forum side by side promoting sustainable living and transportation concepts, as the “ice-breaking” event.”³⁵

When the Vauban quarter was planned, bottom-up logic of plural, colourful, sometimes chaotic, self-organized civic engagement was confronted with the bureaucratic logic of a hierarchically organized state apparatus dealing with urban planning. In the following section, we will highlight a number of important aspects around which tensions arose between the city and the civic forum, as well as how these tensions were dealt with.

The report of the EU funded LIFE project, which financially supported the development of the Vauban quarter (see chapter resources) claimed that the intensive participation of citizens partially lead to important additional expenditures by the City of Freiburg. At the same time it concedes a gain in transparency and acceptance which worked out positively in the sense of a long-term stabilization of the city quarter. The sense of responsibility of the citizens had been strengthened and the disenchantment with politics reduced. Despite occasional conflicts the City of Freiburg and the citizenry see the participatory and cooperative approach as a great gain in auban of the quality and further development of the city quarter of Vauban. Carsten Sperling of *Forum Vauban* reflects that the relation between the Forum and the City can – all in all – be described as “competitive but fair”.³⁶ In view of a more differentiated perspective of the dynamics involved we will present a few examples.

The Vauban city council working group (GRAG) invited a representative of Forum Vauban to take over a permanent seat in a consulting role. The dedicated citizens of *Forum Vauban* welcomed this decision of the city as a step towards them. Nevertheless they were not always satisfied, because

³⁴ <http://www.vauban.de/themen/geschichte/235-projekt-drei5viertel>

³⁵ [<http://www.carstensperling.de/pdf/abstract-ppt.pdf>]

³⁶ <http://www.carstensperling.de/pdf/abstract-ppt.pdf>

transformative social innovation theory

the citizens were expected to adapt to the logics of urban planning which already existed in the city bureaucracy. For example, the city only accepted the presence of one representative in the GRAG which did not correspond with the grass roots democratic structure of *Forum Vauban*, consisting of multiple subgroups (Interview VB1).

On the other hand, it is reported that in one case, protest activities by the inhabitants had lowered the earnings of the city administration. For instance, when creating a specific trustee account, two million Euros were missing, because 'Haus 37' was not demolished and the market place remained non built-up, as a change to the original concept of the city planners.³⁷

We find multiple quotes claiming that Vauban has not been a project that had been planned or even desired the way it turned out to develop by the municipality originally.

"Our previous major Böhme [of the city of Freiburg, from the social democratic party] is not particularly fond of this city quarter that is visited by thousands of expert visitors every year. He thinks that the quarter of Rieselfeld was a bigger success than Vauban."³⁸

The collaboration with and the activity of the city administration is described as difficult and often inconsistent (Interview Sommer/Selle et al 2014). Residents would have preferred that the administration structure and organize the participatory process more actively instead of leaving this role entirely to the citizens themselves (Lehrstuhl für Planungstheorie 2013e).

Maybe it has been an advantage from the perspective of citizen involvement in Vauban that urban planning was busy with planning the Rieselfeld at the time, handing over the coordination of Vauban (sales of lots, construction of roads etc.) to the "Landesentwicklungsgesellschaft" in Stuttgart³⁹ and thus accepting the experiment to grow instead of imposing a top-down concept to be implemented in a traditional way. Nevertheless it has to be conceded that the city has invested more resources than usual into the participatory processes, even though this is true only for the first two building phases.

SPG 14: Already during the third building phase, the city has not informed the inhabitants about the idea of the Vauban quarter. This was to avoid resistance. Those who came could buy. The marketing happened strictly according to economic rules (original: „Schon im dritten Bauabschnitt hat die Stadt die Bewohner nicht mehr über die Idee des Vauban Quartiers informiert. Damit wurde bewusst Widerstand vermieden. Wer kam, konnte kaufen. Die Vermarktung verlief nach rein wirtschaftlichen Gründen.“) (Interviews in Sommer/Selle 2014: 96)

Another example is the difficulty building groups faced with developing trade, crafts and industries in the bottom floors of their buildings, as was envisaged by the urban planning department (Interview in Sommer/ Selle et al. 2014). Some of the reasons for this were a lack of experience and of financial means. Some more professional support might have led to more commercial units at Vaubanallee (Lehrstuhl für Planungstheorie 2013e).

The quarter is characterized by a mixture of different utilizations such as living and working. However, less commercial areas were developed than had been planned at the beginning. This also resulted in the scheduled number of work places not having been met (Sommer/ Selle et al. 2014:

³⁷ <http://www.badische-zeitung.de/freiburg/einmal-vauban-immer-vauban-x1x--110856101.html>

³⁸ Andreas Delleske in <http://www.vauban.de/themen/geschichte/220-geschichte-2008-bis-2013>

³⁹ <http://www.vauban.de/themen/planung-daten/225-planung-des-neuen-stadtteils>

transformative social innovation theory

28). Furthermore the tram line to Vauban has been inaugurated only in 2006 when most of the Vauban residents had already settled.⁴⁰ Only in 2014 did the City of Freiburg meet the demand of the inhabitants to establish fix parking spaces in the central area for the car sharing fleet of Vauban.

A recent case is the late planning of the so called "M1" area at the entrance of Vauban next to Paula Modersohn Place. Plans by the city for the construction of a so-called "green business centre" on "M1" have led to protests and resistance by Vauban inhabitants and others – the „Wagenburg Kommando Rhino“ squatted the area. In May 2008, residents organized a greening event "Pflanzenpark statt Betonklotz" to show alternatives to the planned construction of a long-stretched building.⁴¹ In December 2008, a workshop organized by Stadtteilverein collected further ideas for the design of the area, proposing a combination of a "Green-City-Haus", a green space and a hotel "Vauberge". Despite the detailed construction plans and a large campaign for private funding⁴², the City administration and council refused a participatory approach in the development of the lot.⁴³ During this process, the current investor dropped out and the city-owned company "Freiburger Stadtbau" was finally commissioned to build a complex of two buildings. When negotiations between the squatters and the municipality for the removal of the trailers to another suitable area failed, the „Wagenburg“ was evacuated by police force, against the strong protest of squatters and their supporters (from all over Germany).

Today the site features an office/apartment building and the adjacent Green City Hotel Vauban.⁴⁴ The latter is run by a non-profit company which manages the low energy building, and puts a special focus on the integration of handicapped people, both as customers and as members of staff.

City of Freiburg draws profit from the citizens' ecological commitment

From the perspective of many inhabitants of Vauban, an unjust treatment by the City persists throughout the history of the quarter. In the case of a building lot, a cooperative was given only one year's time to acquire the necessary means, which it did not manage to do. In another case, a commercial builder was given unlimited time by the city and after protest by Vauban activists two years' time (Interview VB1). The peak of what inhabitants experience as inadequate treatment is that the city benefits from tourism in Vauban and from the image of Freiburg as a "Green City" (see chapter on green city) which is due mainly to Vauban and its civic activities, without the latter being recognized and appreciated sufficiently:

SPG 6: that those with whom we had severe conflicts, advertise Vauban today but don't communicate that these successes were results of bottom-up processes (original: „....dass die, mit denen wir die Auseinandersetzungen hatten, heute mit Vauban werben und dabei nicht kommuniziert wird, dass die Erfolge von unten durchgesetzt wurden.“) (Interviews in Sommer/Selle 2014: 96)

Even the „Frankfurter Allgemeine“, one of the most important German daily newspapers appreciates the importance of Vauban for the "green" image of Freiburg. It writes: 'This special mix of ecological awareness and new forms of living an exhibition quarter emerged which became an

⁴⁰ <http://www.stadtteilverein-vauban.de/verein/info.php#vorgeschichte>

⁴¹ See article "Begrünungsaktion am Quartierseingang" in http://www.stadtteilverein-vauban.de/infos/aktuelles_archiv.php

⁴² http://www.stadtteilverein-vauban.de/infos/praesentation_files/green-city72.pdf

⁴³ http://www.vauban-im-bild.de/infos_vauban/green-city-haus.php

⁴⁴ <http://www.vauban.de/themen/geschichte/220-geschichte-2008-bis-2013>

transformative social innovation theory

important basis for the city's reputation. More than any other German city, Freiburg is known for energy aware building and living', says building consultant Beha."⁴⁵

GENOVA

GENOVA had supporters mainly among the Social Democrats and the Green Party members of the City Council in the GRAG, who could influence urban decisions informally in their favour (Interview VB1). Nevertheless further plans about how to cover the neighbouring areas with buildings failed after the first building plan (at Heinrich-Mann-Str.) due to the scepticism of the city. This is why in 1998 only one construction stage with two building parts and 36 apartments could be realized.

One of the accomplishments of GENOVA in view of affordable living space is the fixing of rental prices for 10 apartments supported by GENOVA by means of the social building program for 10 years. However, after some efforts to choose the beneficiaries itself, GENOVA decided that applicants should have an official document proving their eligibility to receive low cost housing issued by city institutions. After 10 years, they can then receive support for paying their rent by a special social fund created by GENOVA. (Interview VB1).

5.1.12 Changing generations in Vauban

The Neighbourhood work reflects on the intensity of participation in the "Vauban10+"series of events in 2010

„Do-gooders are out“ or „Does engagement make you sustainably happy “? However, we can observe more or less the same group of people every time. Most people in the district prefer to stay at home, and it is hard to motivate them to take part actively in the change process towards a better future. Therefore, we ask ourselves if social and ecological responsibility loses importance as wealth increases. Or have images and prejudices about the “eco-ghetto” taken root so firmly that one does not want to appear as a “Vauban activist”? "⁴⁶

The most active period of Forum Vauban, during which citizens were most involved in designing the quarter through planning their own homes as well as the surrounding area, were the years 1994-2002. After that, fewer cooperative building groups have been founded. Since its completion in 2015, Vauban has become one of the most attractive living places in Freiburg, and apartments are handed over from person to person through sale or renting. This also promotes a change of generations. New inhabitants have moved in who identify less with the initial ideas of the founders of Vauban. An "institutional" change of generations also took place when Forum Vauban was forced into bankruptcy in 2004, as well as with the foundation of the new "Stadtteilverein" (district association) in 2005. This association assembles about 130 members out of the 2000 households (without the student dormitories) and frames the voluntary work, as well as the social and cultural life inside the Vauban quarter (Interview VB1).

⁴⁵ <http://www.faz.net/aktuell/wirtschaft/wirtschaftspolitik/neue-lebensformen-in-freiburg-vorzeigeviertel-fuer-oeffentlichkeitsbewusstsein-14386.html>

⁴⁶ Reflections of Patricia de Santiago and Daniel Haas on the level of participation in the "Vauban10+"series of events in 2010, published in Vauban actuel 2010-4, p.3 (<http://www.vauban.de/component/jdownloads/finish/3-vauban-actuel/811-vauban-actuel-2010-4?Itemid=267>)

transformative social innovation theory

The innovative character of Vauban seems to be represented mainly by the inhabitants of the first generation. A strong identity ("feeling of belonging to a we-group") is of course particularly strong for the original inhabitants ("natives") (Interview VB2). The more recent buildings which have emerged during the later construction stages inside Vauban, such as the Gisingerbauten on Merzhauser Str., have been realized by professional builders. While they appear perfect in design and style, the community feeling is missing there according to our interview partner (VB2). Some of the earlier inhabitants criticize that most of the more recent inhabitants identify less with the ecological approach of the project and are sometimes hardly aware of it. (Interviews in Sommer/Selle et al. 2014:94). Similarly, the „project feeling“ about Vauban as a quarter „which brings something special to the city- is maybe less present with the new inhabitants“ (Interview VB2). In contrast, the practice of living without or with a rather reduced use of cars is flourishing as described in chapter 3.2.

In 2010, 'Vauban 10 plus' was started, a series of workshops which was initiated by 'Quartiersarbeit' in order to discuss how the district is developing – 'Quartiersarbeit' (in cooperation with the community center and citizen association) interviewed institutions and initiatives on their viewpoints on "Sustainability"⁴⁷. Vauban is a young city quarter, and it keeps attracting many young families. At the same time, there are a number of remarkable activities offered to elderly people, yet the green areas, playgrounds (as well as possibilities to play on the streets) and the childrens farm playground "Abenteuerhof" are perfect for kids (Interview VB2).

5.1.13 Transformative effects and model character

5.1.13.1 Societal transformation and mainstreaming processes

Since it has been presented at the HABITAT exhibition in 1996 Vauban has been looked at as an experiment and example for numerous other urban planning projects involving citizen participation, car-reduced and sustainable living. It has likely been an inspiration for several law developments in Germany. First, the concept is offering two options for choosing – either payments for a parking lot or a contribution for the association "Autofreies Wohnen" (car-free living) actually creating living spaces free of cars has resulted in a legal amendment on the level of the State of Baden-Württemberg allowing more freedom to create diverse forms of parking lots, for instance for bikes instead for cars only.

However, Vauban's mobility concept has never been politically supported to be copied even inside of Freiburg. The concept of parking places (see chapter on car reduced living) has rather been criticised by the media suspecting that car owners would simply go parking in the neighbouring districts. The reality is that there was an interim phase since many Vauban citizens sold their old car only after they had moved in, while today, there hardly is any more unallowed parking neither in Vauban nor in the neighbouring streets. Yet,

"it is hard to get something back out of people's heads once it has been in there" (Interview VB1).

⁴⁷ <http://www.quartiersarbeit-vauban.de/index.php/quartiersarbeit/vernetzung>

transformative social innovation theory

For the parallel district in planning – Rieselfeld (about 10,000 residents on 72ha of land) – the low-energy housing standard was applied as well, but the car-reduced policy and extended public participation during the planning phase was realised only in Vauban.

GENOVA

GENOVA and other co-housing projects were object to a German legal reform which abolished the so-called *Eigenheimzulage*, a subsidy supporting private house building during its very planning phase. The abolishment of these subsidies has been postponed in result of nation-wide protests – amongst others by GENOVA – by a number of years (interview VB1). By the time when they were finally abolished for new cases, on 1.1.2006, the second building project by GENOVA was concerned. Therefore, some apartments had to be sold as condominiums in order to balance the budget.

5.1.13.2 International Publicity

Vauban received quite a lot of international attention since it has been chosen as the German Best Practice contribution to the UN housing conference Habitat II in Istanbul (Sperling et al. 1999). External support and acknowledgement as a model came already during the development phase, for example through the LIFE project of Forum Vauban⁴⁸, the local environmental award for SUSI⁴⁹ and the involvement of research institutes for accompanying studies, for instance the innovative energy and sanitary concept of the co-housing project “Wohnen&Arbeiten”⁵⁰. Vauban receives visiting requests from all over the world, especially from South Corea at the moment. A network of professional guides hosts tours around the quarter for political and international guests. Vauban made it to the front page of the New York Times in 2009.⁵¹ Even though there are a number of mistakes in this report, for example the claim that the district had already been completed in 2006 and even though the overall tone reads a bit casual, the report generally appreciates the car-reduced way of living in Vauban.

The growing worldwide recognition and dissemination of Vauban as a model-eco district has led to an unexpected phenomenon: more and more interested persons from all over the world have started studying, and visiting Vauban in order to learn more about the details of the district’s development – academia, politicians, technical experts, and even pupils and ordinary persons who just want to add a “green sight” to the standard visiting tour of Freiburg. Today, a guided walk around Vauban is part of the repertoire of many Freiburg tour guides⁵². Admittedly, after digesting first impressions, some of them have also voiced possibility of “transplanting” the ideas behind the model of Vauban to other places (Interview VB2).

5.1.13.3 Green City Freiburg and Vauban

During the development of Vauban most of the external inquiries about the model eco-district were addressed to the key stakeholders mentioned above – Forum Vauban (later Stadtteilverein) and the City’s planning department which had difficulties responding to the increasing interest.

⁴⁸ <http://www.vauban.de/themen/buergerbeteiligung/238-das-life-projekt>

⁴⁹ <http://www.vauban.de/themen/buergerbeteiligung/31-vauban/energie/279-susi-s-%C3%B6kokonzept-von-1995>

⁵⁰ <http://www.passivhaus-vauban.de>

⁵¹ http://www.nytimes.com/2009/05/12/science/earth/12suburb.html?_r=0 on May 11, 2009

⁵² <http://www.freiburg.de/pb/,Lde/225907.html>

transformative social innovation theory

This is when private expert agencies came into place to provide guided tours. At the same time, the City of Freiburg intensified its PR work to present Vauban to the interested public: a website with six subpages⁵³, online and printed brochures in six different languages, as well as imagery and presentations are available. None the last, Freiburg experienced a growing interest as a "Green City" in general, which was fuelled by several sustainability awards, and finally lead to the establishment of a designated "Green City Office"⁵⁴ in the municipal Department of International Relations with one staff in full position to coordinate and answer incoming queries. The office has signed Memorandums of Understanding with four designated "Green City"- agencies to organize study visits and seminars, meeting the visitors' interests.

The City also took the invitation by the organizers of World Expo 2010 in Shanghai to exhibit Vauban as a model of sustainable district development, and since then, visitors' numbers are growing even faster. However, many citizens and stakeholders complain about missing services in terms of hosting the visitors, for instance by providing public toilets, an information booth and information plates.⁵⁵ Suggestions from the district association 'Stadtteilverein Vauban' for the opening of a Green City / Vauban info point as part of the new structure on "M1" area at the entrance of Vauban had been refused by the City who preferred the apartment/office block and Green City hotel⁵⁶.

5.4 Agency in Vauban

In the case of Vauban agency and empowerment have turned out as political issues. Affordable access to land property and the right to create houses in the intended ecological and social ways have been the main driving forces of civil society actors. Empowerment was among the main intentions when this new city district was built. As introduced in the previous chapter, the City as an actor which was used to practicing top-down planning opened up to a participatory planning process that was strongly and professionally suggested by the citizen-lead Forum Vauban.

„During the phase of emergence, almost all aspiring residents of Vauban were involved in one of the projects.“ (Interview VB2)

In the following sections we explain first the internal governance structures that have been established in the planning process, as well as how governance is working in the overall district of Vauban and in the co-housing cooperative of GENOVA today. Based on this plus the interpretation from the previous chapters, we summarize the interaction in an actor map. Secondly, we introduce aspects of social learning connected to the Vauban project, which GENOVA is a part of. Thirdly the resourcing processes especially during the planning and building phase are described and discussed for both the cases of Vauban and GENOVA. Last but not least, we make a few comments about monitoring, existing studies and other data on Vauban.

⁵³ <http://www.freiburg.de/pb/,Lde/208736.html>

⁵⁴ <http://www.freiburg.de/pb/,Lde/372840.html>

⁵⁵ See interviews VB1 and VB2.

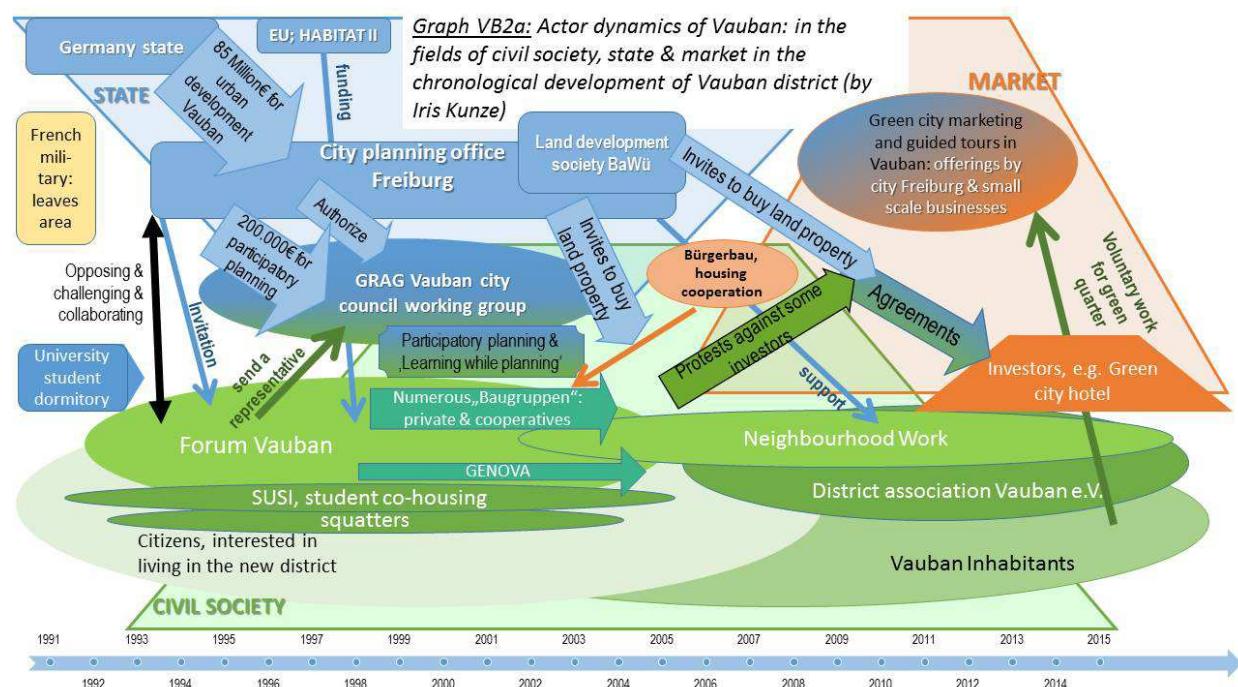
⁵⁶ <http://www.vauban.de/themen/geschichte/220-geschichte-2008-bis-2013>

transformative social innovation theory

5.1.14 Actor mapping

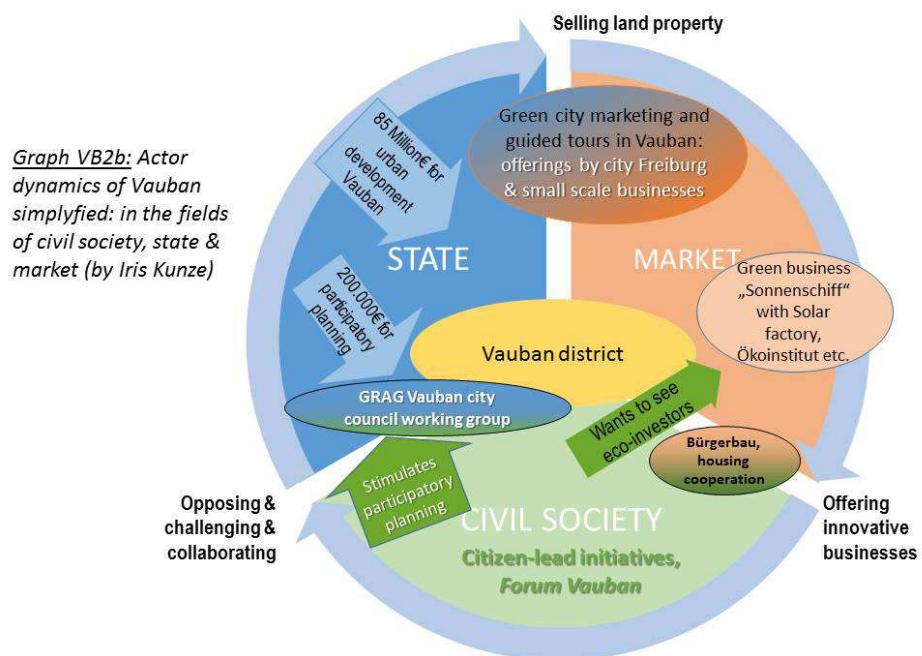
For creating the new district of Vauban, citizens' engagement as well as governmental institutions had been involved from the beginning on. The Forum Vauban appeared earlier and had settled already, when the City started to organize the formal planning process. The following two actor maps show the central actors, their relations and actions in the chronological development of Vauban. The first map shows the details of single actors and relations and their interactions over time, while the second map has been simplified, also leaving out the time aspect. The phase of planning and building merges into the later phase of 'living' till today.

Graph 5.3: Actor map 1 of Vauban: dynamics over time in detail (by Iris Kunze)



Graph 5.4: Actor map 2 of Vauban: dynamics simplified (by Iris Kunze)

transformative social innovation theory



5.1.15 Governance

5.1.15.1 Internal governance in Vauban

During the planning phase, the City of Freiburg as the owner of the land had the responsibility and power to decide on planning and selling land slots- except for the areas of SUSI and the student homes already owned by the Studentenwerk who had bought them directly from the German real estate institution.

"The City of Freiburg set up the principle of "Planning that Learns" and allowed an extended citizen participation which was organized by "Forum Vauban". The structures of planning and decision-making were remarkably transparent and included the Forum as a consultative partner.⁵⁷ In terms of power, actors and responsibility „the main agency [with regard to the urban planning project Vauban] formally was with the city administration, who transferred the task of project management to a specific project group [„GRAG“].

The „**Vauban city planning council (GRAG)** is a committee inside the city council, in other words a working group of the city council and the urban planning department of the city which has been especially created to plan the new district of Vauban. It is in charge of creating the necessary infrastructure, take over a coordinating role, do the marketing of the territories and the PR work. It was supported by the LEG, who works for it as a trustee.⁵⁸ The group consisted of representatives from different offices of the city of Freiburg, mainly the urban planning department. It is reported that individual builders had to present their projects and conceptions in the sessions of the GRAG

⁵⁷ [<http://www.carstensperling.de/pdf/abstract-ppt.pdf>]

⁵⁸ [<http://www.perspektive-petrisberg.de/index.php?id=589>]

transformative social innovation theory

and receive its agreement. The GRAG could also demand modifications. It was not unusual that a project was declined, and that a better fit to the concept of "Vauban" was demanded.⁵⁹

After Forum Vauban had successfully applied to the Baden-Württemberg Development Agency (Landesentwicklungsellschaft LEG) for the governance and financial responsibility of the extended participation, it was not only granted related funding, but one representative of Forum Vauban was also invited to the working group in an advisory role⁶⁰. "The GRAG then elaborated the details of the master plan and decided about the fit of single building projects. The decisions of the GRAG then went to the city council for voting."⁶¹

*"Participation needs independent advocates who are at the same time integrated into the planning and decision-making processes. In the case of Freiburg-Vauban positive experiences were made with the „outsourcing“ of citizen involvement out of the city administration and its simultaneous institutional integration into the city council working group via round tables. The parallel working structures of the city administration and the citizen involvement forums often only made new solutions possible in the first place. In this sense, citizen involvement needs a long-term organizational, personal and financial perspective."*⁶²

Forum Vauban was created in 1994 by activists from various environmental movements, as mentioned above. They already had an eye on this place, before the City of Freiburg could buy it and start to make its own plans. Founded on December, 22 in 1994 with only seven people, Forum Vauban was growing rapidly. Only two months later, 60 people met on a regular basis. After half of Vauban had been built in 2003, about 400 people were intensively involved in the development of the quarter and the participatory processes of "learning while planning".⁶³

Between 1996 and the end of 2000, Forum Vauban acted as legal body framing and hosting the participation process.⁶⁴ The work of Forum Vauban consisted in offering networking between people with building ambitions, informing about diverse topics around the "Baugruppen"-process (see chapter social learning) and contributing to the building process of the district in collaboration with GRAG, the Vauban urban planning group. In addition, numerous regular working group gatherings as well as meetings of special projects or "Baugruppen" and other co-housing groups linked with or situated at Vauban took place regularly. At that time, there were about four meetings of district groups each week on the premises of Forum Vauban. The working groups' issues were: traffic / mobility, energy, coordination of the Baugruppen, social life (round table and advisory board of social initiatives, representatives from the City of Freiburg and some welfare institutions), business (roundtable with Baugruppen, commercial representatives and the City of Freiburg), and others. In 1999, Forum Vauban has further been assigned the responsibility for the coordination of neighbourhood work, for setting up and supporting a social and cultural infrastructure in the new district.⁶⁵ The Bürgerbau AG (Citizens' Building Corporation), originated from Forum Vauban and has specialized in coordinating "Baugruppen" projects. It offers all kinds of services from planning to building and moving in.⁶⁶

⁵⁹ http://www.vauban-im-bild.de/infos_vauban/umwelt.php

⁶⁰ <http://www.vauban.de/themen/mobilitaet/194-verkehr-kapitel-4>

⁶¹ http://www.vauban-im-bild.de/infos_vauban/buergerverein.php

⁶² <http://www.carstensperling.de/pdf/kommunikation-gestalten.pdf>

⁶³ <http://www.badische-zeitung.de/freiburg/vauban-wo-einst-soldaten-exerzierten--35323023.html>

⁶⁴ <http://www.vauban.de/en/topics/history/276-an-introduction-to-vauban-district>

⁶⁵ <http://www.vauban.de/themen/mobilitaet/194-verkehr-kapitel-4>

⁶⁶ [acc. to <http://www.vauban.de/en/topics/history/276-an-introduction-to-vauban-district>]

transformative social innovation theory

Legally, in terms of administration, Vauban is a normal city district of Freiburg. But still there is an active citizenship, self-organized internal governance and intensive neighbourhood work done, that is probably special. The Vauban district center is more self-managed than other district centers in Germany. When Forum Vauban got bankrupt in 2004⁶⁷ after lawsuit from European Commission, this was leading to the closure of the NGO, but the work was continued only one year later by the newly founded 'Stadtteilverein Vauban e.V.' (city district association), from then on based on almost residential members and with different aims. The association informs regularly about its activities in the magazine 'Vauban Actuel'⁶⁸ and was assigned responsibility for the 'Quartiersarbeit' (neighbourhood work) which was newly conceptualised by the municipal Office of Social Affairs and Youth, and thus equipped with one paid staff and several volunteers. The work of 'Quartiersarbeit'⁶⁹ consists of providing rooms, organizing events and networking within Vauban amongst the different interest groups, including mediation work. Additionally, the 'Haus 37' was renovated and is till today governed by an independent association. Actually, it is lacking financial and human resources to advice and guide the streams of visitors. The City of Freiburg does not install a tourist office or visitors toilet; instead the tourist office in the City center of Freiburg is seen as sufficient. As a result, visitors often look for advice and toilets in the district center 'Haus 37' (Interview VB1).

The 'Quartiersarbeit' is equipped with an advisory board, a platform for dialogue between institutions, initiatives, Baugruppen, interested residents and the city administration. Concerns and suggestions can be brought up. The advisory board of 'Quartiersarbeit' can suggest provisions to the responsible city administration.⁷⁰ During the building process, the City agreed to keep one of the military houses for transforming it into a quarter center, the 'Haus 037'. Owned by the City and renovated in hundreds of hours of voluntary work by the Vauban citizens, the center is self-administered and hosts the district library, restaurant, children daycare, public meetings rooms for rent⁷¹ and two offices of the 'Quartiersarbeit'.

5.1.15.2 External governance in Vauban

An example of active interaction of Vauban with the 'rest of the world' was the four-day conference 'StadtVision' (city vision) in 1999, organized by Forum Vauban and ICLEI-Local Governments for Sustainability based in Freiburg. 130 participants from 21 European countries were discussing questions on sustainable city development and new forms of participation.⁷²

As Forum Vauban before, the 'Stadtteilverein' – next to its 'Quartiersarbeit' – represents the Vauban district to the 'outside world'. This encompasses information exchange with the City administration (planning department, Green City office), eco-tourists, research institutes (e.g. Fraunhofer ISE), NGOs and other citizens' initiatives.⁷³ Also a partnership with a rural village in the wider region of Freiburg organizes cycling tours, visits and learning events for school kids and adults. Just in

⁶⁷ <http://www.stadtteilverein-vauban.de/verein/info.php#vorgeschichte>

⁶⁸ <http://www.vaubanactuel.de/>

⁶⁹ <http://www.quartiersarbeit-vauban.de/index.php/quartiersarbeit/vernetzung>

⁷⁰ <http://www.quartiersarbeit-vauban.de/index.php/quartiersarbeit/beteiligung-im-quartier>

⁷¹ <http://www.haus037.de/>

⁷² <http://www.vauban.de/themen/buergerbeteiligung/238-das-life-projekt>

⁷³ <http://www.badische-zeitung.de/freiburg/einmal-vauban-immer-vauban-x1x--110856101.html>

transformative social innovation theory

December 2015 Vauban started a city partnership with the French town Eybens, which approached Vauban to learn from its experiences as sustainable city district.⁷⁴ Most of the networking activities in Vauban are maintained by the individual projects, for instance SUSI and its membership with the Mietshäusersyndikat, the VAUBANaise project which is supported by the Ökogeno cooperative (see table projects in Vauban), or the restaurant 'Kantine' which is member of the *Slow Food movement*.

5.1.15.3 Internal governance in GENOVA

Legally, GENOVA is a cooperative. Its members support the concept of this co-housing, and co-living project in Vauban, some of which as members only (contributing in cash), some as members and active residents, renting one of the flats, contributing to the common life, using the GENOVA infrastructure etc. Out of the 384 cooperative members in 2015, 182 are living in one of the four buildings. In order to make GENOVA an inclusive living place, the cooperative is even regulating the pricing structure, reducing house rents for elderly people and long-term members, as well as persons with the right to social housing, so called "Wohnberechtigungsschein".⁷⁵

Today, board members receive part time payments. Meetings of the inhabitants of GENOVA are held if inhabitants call for it and take the initiative. Mostly, this takes the form of open evening gatherings featuring hot topics such as creating a social fund, lowering rents for elderly members, or how to support refugees by giving courses in GENOVA rooms. As a rule, projects depend on the initiative and dedication of individual members, such as the former working group "young & old", the promotion of aubanulood activities such as cooking together, talent exchange forums, a solidarity fund for low-income earners (Interview VB1).

Other than for capital investments in the building process, GENOVA was also relying on voluntary work of the residents-to-be. 10% of the investment costs are said to be saved by self-help in the construction phase. Furthermore, in GENOVA's starting phase, competent students of architecture and architects have worked on voluntary basis in the context of the participatory planning processes (Interview VB1). Membership is gained by an initial payment of at least one cooperative share (520€ in 2015). The communal building can be used free of charge for private events etc., and for a small donation also for business events (for example yoga courses). Guest rooms are given out for a minimal price for the running costs (Interview VB1).

Such members interested in becoming a resident of GENOVA, i.e. renting an apartment in one of the buildings, need to pay 60 shares, half of them before moving in, the remaining half within 6 years' time. GENOVA residents pay a rather low rent of about 7.70 € per qm, which is similar to the Freiburg average rent of 7.53€/m² (in 2013) whilst the average in Vauban is considered about 11% higher than that⁷⁶. But the cooperative was also designed as a pool for social investments. This concept worked out so well, that in 2015, the budget was balanced.⁷⁷

⁷⁴ <http://www.badische-zeitung.de/freiburg-suedwest/vauban-findet-in-frankreich-neue-freunde--114806688.html>
2015-12-08

⁷⁵ see <http://www.badische-zeitung.de/freiburg/wohngenossenschaft-genova-beruecksichtigt-alter-und-einkommen-ihrer-mieter--74322998.html>

⁷⁶ <http://www.badische-zeitung.de/freiburg/wohngenossenschaft-genova-beruecksichtigt-alter-und-einkommen-ihrer-mieter--74322998.html>

⁷⁷ <http://www.genova-freiburg.de/SozialeGeldanlage.html>

transformative social innovation theory

5.1.15.4 External governance in GENOVA

GENOVA and other co-housing projects in Vauban are not explicitly members of a global co-housing network. According to German cooperatives law, every cooperative has to a member of one of the numerous cooperative confederations in order to be advised, supervised and observed. GENOVA and Quartiersladen are both members auban „Prüfungsverband der kleinen und mittelständischen Genossenschaften e.V.“ (PkmG).⁷⁸ This unit audits cooperatives in all states of Germany. It is specialized to small and middle-scale cooperatives in nearly all branches of housing, trade, marketing, water and energy, social economy and diverse service sectors. The unit offers consulting services to its currently 196 cooperative members, of which 51 are located in Berlin and 17 in the state of Baden-Württemberg where Vauban is located. The inclusive housing project VAUBANaise eG is a project of Oekogeno⁷⁹, a housing cooperative in Germany, which is a member of PkmG.

GENOVA and VAUBANaise do not follow an idealistic purpose with their membership in PkmG, but use the free and obligatory consulting options of the ‘German Cooperative and Raiffeisen Confederation’⁸⁰ (Interview VB1). The privately run internet portal ‘Ökosiedlungen’ is presenting GENOVA as one of the eco-co-housings in Germany.⁸¹

5.1.16 Social learning through Vauban

Vauban is a field that invites for social learning for the residents as well as for the many attracted visitors from all over the world. *Forum Vauban* considered the social processes as important base for a sustainable living in the aubanulood. On its website, Forum Vauban states: “**Learning about participatory planning** processes was a key topic in the Vauban process. The principle “Learning while Planning” and the extended citizen participation with *Forum Vauban* set new standards of communication, interaction and integration. **Social interaction** and social work being part of the developing process helps to set up stable community and neighbourhood structures. Very often, such structures already grew through the building process. Many “Baugruppen” (groups of building owners) and the GENOVA co-operative have developed a sensitively balanced community life. These structures are the fertile ground for further initiatives within the district (e.g. the co-operative food store, the farmers’ market initiative, the mothers’ center, and many others).”⁸²

In the planning phase, Forum Vauban organized about 40 major workshops and excursions which had a strong learning aspect, three district festivals and the international conference “UrbanVisions” as a pre-event of the UN “Urban 21” conference in Berlin. About 10 events were co-organized with the City of Freiburg, mainly addressing future house owners, architects, craftsmen, the building industry and financial institutes. Besides participatory planning and ecological building these workshops also featured special topics like building with local wood, greening roofs

⁷⁸ <https://www.pruefungsverband.de/>

⁷⁹ <http://www.oekogeno.de/content/projekte/vaubanaise.aspx>

⁸⁰ <https://www.dgrv.de/en/aboutus.html> 2015-12-04 The DGRV - Deutscher Genossenschafts- und Raiffeisenverband e. V. (German Cooperative and Raiffeisen Confederation – reg. assoc.) is both the apex and auditing association of the German cooperative organisation.

⁸¹ <http://www.oekosiedlungen.de/genova/>

⁸² <http://www.vauban.de/en/topics/history/276-an-introduction-to-vauban-district>

transformative social innovation theory

and the use of rainwater, financing of building projects, design of district's public areas, and the neighbourhood center.

The participatory planning was not just a process, but created manifested houses and infrastructures where some people spend the rest of their lives. Living next to a co-created open space, where the inhabitants could realize some of their needs and wishes has created a high motivation to maintain and care for those public (green) areas. Indeed, the physical spaces are the manifestations of the planning processes of each related neighbourhood in these semi-public and public spaces. The aspect of community building in the early phase with the future neighbours is seen as centrally important:

"That is the great result of this collective planning and building that one has gotten to know one's neighbors already before moving in. This is especially important for kids – they have already made friends" (Interview VB1).

During the first year of living on site, the Vauban citizens realized what kind of functions were missing in their quarter, hence they got active themselves:

We realized quite early that the many children will grow into teenagers. Therefore, parents, 'Quartiersarbeit' and other engaged people were getting active to organize a soccer field – at least provisional. The city had simply not planned that. (original: „Es war uns schon früh klar, dass aus den Kindern jede Menge Jugendliche werden und da haben sich Quartiersarbeit, Eltern und andere Engagierte dafür eingesetzt, dass es wenigstens einen provisorischen Fussballplatz gibt - die Stadt hatte das einfach nicht vorgesehen“) (Interview VB1).

Today, Vauban is a vital district in terms of aubanulood activities and social interaction above the ordinary. In terms of 'spaces' for social interaction the highly frequented square in front of Haus 37 is the central socializing area and meeting point for Vauban as a whole. The 'Quartiersarbeit' organizes a weekly farmers market with regional food supply, and regular flea markets. In Vauban, for the residents and often also externals, a number of ecological and self-engaging activities are offered. Especially the children's farm playground 'Abenteuerhof' (farming, building, gardening together) offers direct and regular option to deal with farming animals which is rather rare for city children. An unusual high variety of cultural and ecological activities are organized by residents and externals like the Wandelgarten (community gardening), movie nights in SUSI- co-housing, markets, political lectures and workshops by Stadtteilverein.

On its website the 'Quartiersarbeit' encourages people to become active in networking and supporting their neighbours, solving conflicts with the help of Quartiersarbeit.⁸³ In the case of conflicts, for instance around teenagers, noise or garbage in the green areas, the Vauban people rather opt for mediation – on private base or supported by the Quartiersarbeit – than calling the police (Interview VB2).

Vauban spreads its social model in different ways. Vauban's widespread reputation as model eco-district (e.g. through exhibition at World Expo Shanghai) attracts hordes of visitors from all over the world. A number of organizations offer guided tours to Freiburgs green city with a special part of Vauban. About 25,000 such technical visitors are counted by the municipal Green City Office each year, most of them from South Corea, France and Italy, many of them politicians or (municipal)

⁸³ <http://www.quartiersarbeit-vauban.de/index.php/quartiersarbeit>

transformative social innovation theory

technical staff, but many also school children. Just in October 2015, the Lord Mayor of Fukushima asked for a guided visit of Vauban. Often visitors inquire how the topic of sustainability is put across. For instance, guests from Asia wanted to know if people had to learn specific things before moving in here and whether children were given lessons in how to separate the waste. Neither of this is the case (Interview VB2).

Most of these visitors claim they are taking inspiration from the innovations of Vauban, but there is no monitoring or evaluation and little feedback as to where and how these inspirations have led to real changes in other places. Nevertheless, many examples show the dissemination of Vauban's experiences. For instance, after several visits and exchanges with Vauban citizens, the nearby rural Municipality of Teningen, with which Vauban has developed a partnership, is now planning to invest in solar installations as well (VB1).

The strong media coverage of Vauban, such as the front page article of the New York Times in 2009 has made the district known for its social and ecological innovations, even with persons who did not have the opportunity to get to know Vauban in real life.

GENOVA

In the *GENOVA* project, the social and age structure is equally heterogeneous which sometimes leads to conflicts. However, so far the members have always found consensus solutions (Sperling et al. 1999). Worries about noise by playing children, especially by neighbours who are not members of *GENOVA* (i.e. the neighbouring building groups Allegro on Vaubanallee or, in the North, individual builder-owners), as well as by inhabitants beyond 60 years of age, could always be regulated internally and peacefully. The same is true for subjects such as the house rules or the lunch hour. In case of more serious conflicts, the KOKO mediation network and residential mediators is there to provide support.

The inhabitants of *GENOVA* continue to engage beyond their own housing project. Currently, members develop ways to support refugees, in cooperation with the citizens' association of the neighboring quarter St. Georgen, as well as the social working group and the church office (joint project of the catholic and evangelical Churches at Vaubanallee) (Interview VB1). In addition, members of *GENOVA* have been active for four years helping children in India which work in stone quarries. This work has contributed to the foundation of a kindergarten in 2012.⁸⁴

5.1.17 Resources

The resources that made Vauban possible have two different origins – due to the two different contexts this projects has emerged of: First, – in terms of chronological development – from the citizen's initiative and second, from the city development budget.

Firstly, a diverse mixture of resources could be raised and gathered by the citizens. It consisted first of all in **voluntary work** for planning the private houses and furthermore working on concepts for the whole district. Furthermore, the *Forum Vauban* could fundraise several projects

⁸⁴ <http://www.genova-freiburg.de/Hilfsprojekt%20GENOVA%20Kindergarten%20Indien.pdf>

transformative social innovation theory

because of its special model character, sometimes in cooperation with the city or other official institutions.

The Forum Vauban “made available further human and financial resources to play an independent, substantial role [vis-a-vis the city] and to be granted (almost) equal opportunities – at least in some key aspects”⁸⁵. Funding has been received both from the German Federal Foundation for the Environment (1996-2002: about EUR 200,000), which enabled an intensive citizen involvement, organized and facilitated by *Forum Vauban* (Sperling 2004), and from the EU LIFE environmental programme of in order to pay some part-time positions (from 1997-1999: ca. EUR 700,000) (Forum Vauban e.V. 2004b), as well as from a number of other institutions. Counting also the membership fees, donations and moderate economic revenues (by sponsoring, exhibitions, publications etc.) the association has attained an overall budget of about EUR 2,000,000 over the years 1995-2001. The regular, thus secured income of *Forum Vauban* from membership fees, however, only amounts to EUR 10,000 per year.⁸⁶ In addition, after 2002 there was also project-based funding for the brochure “sustainable urban planning starts on the level of the district”, the “Dubai-Award”⁸⁷, expert support to the enlarged citizen involvement, and for the mobility concept.⁸⁸ All in all, Forum Vauban was managing a budget of 2 million Euro from 1995-2001. In the planning and building phase several sub-groups of Vauban had also raised different forms of funding. The self-organised independent settlement initiative SUSI developed an innovative eco-concept which was awarded the 1996 Environmental Prize of Freiburg Municipality.⁸⁹

The most important resource is the voluntary work, especially of engaged experts in the planning process. Furthermore, some Vauban inhabitants volunteered to renovated for instance the quarter centre, Haus 37. Today, Vauban neighbourhood work hosts different cooperatives and services. Projects without residential relation like the organic food store have also members from beyond Vauban.

On the level of private housing subsidies, the house builders and cooperatives could make use of the so-called Eigenheimzulage, a state subsidy for builder-owners. Building in Baugruppen is financially attractive only for families due to specific subsidies, whereas building in cooperative contexts is supported also for people without children. This was made use of extensively by GENOVA (Interview VB1).

Secondly, for the regular process of building a new district financial supports was provided for the **city administration by the Federal State of Germany**. As an urban development project, the Vauban has a specific status and budget (EUR 85,000,000) according to German building law. The latter is administered by the project group Vauban in cooperation with the local development agency LEG Baden-Württemberg. The revenue for planning and developing the infrastructure (including restauration of old buildings, kindergardens, primary school and neighbourhood centre) came from the Baden-Württemberg state programme (EUR 5.000.000) and from credits that have been secured for the project by the City of Freiburg. All credits had to be refinanced via selling building lots. All in all, the City has invested 95 million Euros into streets, playgrounds,

⁸⁵ [<http://www.carstensperling.de/pdf/abstract-ppt.pdf>]

⁸⁶ Sperling 2002: <http://www.carstensperling.de/pdf/dubai-erg.pdf>

⁸⁷ <http://www.vauban.de/themen/buergerbeteiligung/248-der-dubai-award>

⁸⁸ [<http://www.vauban.de/themen/buergerbeteiligung/3-forum-vauban>].

⁸⁹ [<http://www.vauban.de/themen/buergerbeteiligung/31-vauban/energie/279-susi-s-%C3%B6kokonzept-von-1995>]

transformative social innovation theory

kindergartens and green areas which had been re-financed out of land sale revenues.⁹⁰ In addition, the Vauban project does not receive specific financial support. The city provided around EUR 200,000 from its budget „for the participation process and the social quarter work done by Forum Vauban due to their character as developmental projects (1995-2002) (Sperling 2002).

GENOVA

The GENOVA housing cooperative is based on membership fees and direct loans. During the building phase, social interaction was extremely important to form the new neighbourhood and self-governed co-housing project. Based on a strong commitment to invest in its own house in cooperation and neighbourhood with the others for probably the rest of their lives, the members organized a democratic self-governed structure for the houses and the shared spaces.

5.1.18 Monitoring and evaluation in Vauban

Vauban as a city district is evaluated in terms of demographic change by the city of Freiburg according the regular statistics of city development and inhabitants (see details in Chapter 5.1). Focal aspects are costs for living⁹¹ (Interview VB1) and also quality of life. Another remarkable statistic shows the election data: At the local elections in 2009, the green, leftist and alternative party lists gained a total of 75 percent of the vote in Vauban district – more than about twice the average of the vote in the rest of Freiburg.

The Öko-Institut Freiburg has examined ecological and economic effects of Vauban. One of the analytical approaches is the life cycle and regional material flow analysis. Some of the impacts which have been found out for Vauban are:⁹²

- Energy savings per year: 28 GJ (calculated as “CER”, cumulative energy requirements).
- Reduction of CO₂-equivalents per year: 2100 t.
- Reduction of auban-dioxide (SO₂) equivalents per year: 4 t.
- Saving of mineral ressources per year: 1600 t.

Life satisfaction of the inhabitants of Vauban

All in all, the inhabitants are very satisfied with the development of the city quarter Vauban. A survey by ‘Quartiersarbeit’ and Freiburg Institute of Applied Social Sciences FIFAS on the perception and acceptance of Vauban and the work of ‘Quartiersarbeit’ in 2009 reports that 90 percent of the Vauban interviewees said they did not want to live in any other quarter of Freiburg or in a different city at any price. Similarly the “Stadtteilcheck” of the local newspaper Badische Zeitung in 2012 identified a very positive evaluation of Vauban by its inhabitants (giving them the mark 1,72 on a range from 1 for very good to 6 for very bad).⁹³

⁹⁰ [<http://www.carstensperling.de/pdf/abstract-ppt.pdf>]

⁹¹ The rents in the renovated old buildings are relatively low compared to the neighboring districts in Freiburg. The prices of the new houses have raised because of increasing attractivity of the quarter (Interview VB1)

⁹² <http://www.oeko.de/service/cities/> <http://www.vauban.de/en/topics/history/276-an-introduction-to-vauban-district>

⁹³ <http://www.badische-zeitung.de/freiburg/einmal-vauban-immer-vauban-x1x--110856101.html> and <http://www.quartiersarbeit-vauban.de/index.php/home/vauban-in-zahlen>, <http://www.badische-zeitung.de/freiburg/einmal-vauban-immer-vauban-x1x--110856101.html>

transformative social innovation theory

In the study by Sommer/Selle et al. (2014) a street survey was conducted by students, asking whether the goal of creating a city quarter of short distances had been reached. Out of 100 respondents, 79 answered that this goal had been "fully attained", 15 percent answered it had been "attained" and no-one said it had not been attained. In almost all conversations with key experts we have found that the development of a district center along Vaubanallee and Merzhauser Straße with shops offering daily goods has been successful and that it is being used also by the neighboring quarters. However, some respondents have expressed the desire for shops offering lower prices (Sommer et al 2014: 28f). Yet, there are two second hand stores in Vauban.

5.5 Summary, synthesis, conclusion for Vauban

5.5.1 Vauban as a co-housing framework

Citizens as well as governmental institutions had been active in creating the new district of Vauban from the beginning on. With Vauban major aspects of a sustainable and social innovative district has been realized. On the one hand, it was built in a bottom-up process through self-organized housing initiatives of cooperatives and privately organized building groups (*Baugruppen*). On the other hand, the overall planning of infrastructure, the selling of land property, and the ecological building laws were set-up and coordinated by the government of the City of Freiburg including participatory planning processes with the future residents. Therefore, Vauban can be seen as an example of social innovation that was already 'scaled-up' in its emerging process to a city district with 5.500 inhabitants.

The main aspect of Vaubans' innovation is the negotiation process between the City's urban planning office and the strong citizen initiative of *Forum Vauban* with its diverse aims of a socially just, ecological district. When the city started the competition for planning the district, Forum Vauban and especially the student settlement initiative *SUSI* were already professional working groups for planning the district. The bottom-up logic of social innovation – a plural, aubanul, sometimes chaotic, self-organized civic engagement – was confronted with the bureaucratic logic of a hierarchically organized state apparatus dealing with urban planning. For examining this interaction and collaboration process we have strongly focussed on the dynamics of participation, and on the various forms of interaction between the city and the citizens which encompassed diverse conflict lines.

If we look from the perspective of the government of Freiburg, Vauban is a case in which a city has been venturing something new in the field of city planning – stimulated by the citizen-lead *Forum Vauban* – not only in terms of technical innovations of infrastructure, but in terms of social innovations. It was expressed especially by trusting in a citizen-lead initiative as an equal partner in the process of decision-making and planning by inviting a representative of the Forum. In addition, the Vauban district planning council co-funded the participatory process of the *Baugruppen*-building initiatives.

As regards the citizen's initiatives it can be observed that there was enough time and knowledge to set up their concept professionally so that the city could not work without them. The initiative had a certain degree of publicity in Freiburg and the majority of the activists could build on networks and on previous experiences in political campaigning, environmental expertise, and decision

transformative social innovation theory

making. They were able to attract architectural experts supporting them on a voluntary base. The citizens had created their own platform by help of their social networks, in order to plan and create 'their' district. Participatory processes and other disputes around potential investors were responsible for the fact that Vauban, while it had been planned to be finished in 2006 –was actually only completed in 2015 with the last building being realized.

With the regulation for energy-efficient housing and the car-reduced infrastructure a standard was set which enables sustainable living practices that can neither be influenced nor realized on an individual level: especially the concept of short distances between living, working, shopping and child education, the high amount of green areas including playgrounds and a kindergarten farm, and an ecological block heat and power plant.

We also want to mention the differences in motivation and engagement for the new city district between *Forum Vauban*, highly motivated people with the aim to build 'their eco-social district' and the governance officers, fulfilling their job contracts of organising the legal building process for a new district and of selling land and houses. When we tried to find interviewees, the response was positive amongst Vauban residents and former activists, nevertheless difficult to arrange meetings with the highly asked activists. In contrast, we received reserved responses when we asked members of the former city planning council of Vauban for an interview. The fame of Vauban as a role model for a sustainable district does not seem to respond with the municipal staff. Even the former coordinator of the "Vauban project" stated his amazement about the ongoing interest in Vauban years after the main development. Furthermore, the mayors of Freiburg are rather reluctant on supporting the opinion of a successful district. Nevertheless they profit from the high quality of life, the voluntary engagement, the green image of Freiburg, also due to Vauban, and the increased tourism.

Vauban shows how citizens can shape their living environments and care for them collaboratively. They care not just for their private houses but for collective, semi-public, and even public spaces in their neighbourhood, because they were involved in planning the infrastructure and they had the opportunity to co-create their home with previously chosen neighbours. The reason for the green and socially cohesive, but open character of Vauban, evaluated highly positive by its residents, can be found in this residential-oriented planning process and ownership structure. The residents felt acknowledged and co-create their living spaces, according to their relation to the place, identification and long-term caring for the district. In the green areas and the district house hardly any garbage or damage can be found. The criminal rate is just an eighth of the rate of the entire city of Freiburg.

5.5.2 Cooperative and other co-housing models in Vauban

Looking at the situation of cooperatives in Germany, 23% of all new cooperatives are energy cooperatives (Schröder et al. 2011). Regarding new foundations of housing cooperatives, there are projects of common housing in newly built or modernized houses designed for elderly people, for example. In the German Federal States of Schleswig-Holstein, North Rhine-Westphalia, Hamburg, and Lower Saxony the traditionally large housing cooperatives are more strongly integrated into the urban planning process than the often smaller, decentralized coops in Southern Germany (Enkeleda 2011). Vauban can be seen as an exceptional large co-housing district in Southern

transformative social innovation theory

Germany, still retaining its small-scale character, expressed in the diversity of “Baugruppen” housing ownership models.

If we zoom into the single co-housing projects of Vauban, we find multiple kinds of co-housing models. This mixture of private owners, large housing cooperatives and private co-housing cooperatives is unique. It would be a field of research to compare these different kinds of ownership and their effects on residential living next to each other in Vauban. The ten co-housing projects in Vauban could not be examined in detail. Nevertheless, we have taken a closer look at GENOVA. It was one of the precedents in cooperative housing which started the ‘participatory wave’ of Vauban with the help of the experts of Forum Vauban. GENOVA has become a stable co-housing project, even though some of the enthusiastic spirit from the beginning has meanwhile decreased.

5.5.3 Model function and replicability of Vauban

In terms of dissemination and societal transformation, Vauban is a strong model which is still looked at and visited by experts, as well as interested people from all over the world – especially from East Asia. The visitors are attracted by this colourful district, its aspects of energy-efficient housing, the combined heat and power plant, the car-reduced infrastructure and the participatory and builder-lead planning process. Vauban is listed as the number one car-reduced district in Germany.⁹⁴ On the other hand, there is also critique – by those activists who had expected a more radical participation in the planning process and a stronger focus on ecology, as well as by city planners – including those who have been part of the planning process. The concept of Vauban was never repeated in any other new district of Freiburg except for the low energy standard for housing which has been introduced as obligatory in Freiburg since then. Unfortunately this regulation has influenced a negative effect on affordable housing, because the standard has increased the prices. On the other hand the heating cost went down. In this sense, this case reveals a danger of extracting single innovations from the overall concept or case they are embedded in. If the social innovation of citizen-lead planning and ownership – for instance in the form of housing cooperatives – was combined more often with the technical innovations of ecological building laws, affordable housing in low-energy houses could be realized on a broader basis.

Today, living in Vauban is highly popular which has an unintended effect on prices and rents within this district. The largest and oldest residents-organized co-housing initiative GENOVA has installed a dedicated fund and internal agreements to keep the rents affordable. The quality of life is evaluated as high by the inhabitants of Vauban, because of the green and car-reduced infrastructure, the cultural, economic and educational services and offerings and last but not least because of a special flair: the district is colourful, open-minded, safe, socially cohesive, and ecological. Vauban has proven that a car-reduced infrastructure is not only highly accepted, but even specially looked for by a growing number of people. Finally the impression remains that the real secret of Vauban’s attraction is based on the evidence that citizens can ‘make it on their own’.

⁹⁴ <http://www.autofrei.de/index.php/so-geht-autofrei/autofrei-wohnen/wo-gibt-es-autofreie-wohngebiete>

transformative social innovation theory

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- Sperling, C. (Ed., 1999) Nachhaltige Stadtentwicklung beginnt im Quartier: ein Praxis- und Ideenhandbuch für Stadtplaner, Baugemeinschaften, Bürgerinitiativen am Beispiel des sozial-ökologischen Modellstadtteils Freiburg-Vauban, published by Forum Vauban e.V., Freiburg, and Öko-Institut e.V., Freiburg/Darmstadt/Berlin, Germany. Accessible through: <http://www.dellekom.de/files/stadtentwicklung-quartier.pdf>

7.2 primary sources by citizen-lead initiatives and Vauban-related institutions

References	Year/day	Keywords	Abstract	Link/reference	Author	Language
Vauban general						
auban.de	2013-09, last visited 2015-11-13	History, Planning, Extended participation, Energy, Ecology, Mobility, Social Issues,	Extensive web presentation of the development of Vauban in its various aspects, privately initiated and edited by one of the early Vauban residents	http://www.vauban.de/	Andreas Delleske	de, en, it
„Timeline (Abstract)“	2013-09, last visited 2015-11-13	History	Timeline of Vauban's development from 1937 to 2013	http://www.vauban.de/en/topics/history/281-timeline-abstract	Andreas Delleske	en

transformative social innovation theory

Stadtteilverein Vauban	Last visited 2015-11-13	History, District Association, Social Issues, Culture, Participation, Neighbourhood Work, Magazine	Website of the district association, informing about structure, activities and offers, with reference to the predecessor Forum Vauban and link to Neighbourhood Work designated website	www.stadtteilverein-vauban.de/	Stadtteilverein Vauban e.V.	de
Quartiersarbeit Vauban	Last visited 2015-11-13	Neighbourhood Work	Website of the Neighbourhood Work, paid staff by City of Freiburg, governed by Stadtteilverein Vauban	www.quartiersarbeit-vauban.de	Karin Pinkus for Stadtteilverein Vauban e.V. – Quartiersarbeit	de
“Das LIFE-Projekt”	2013-09-29 (last update)	Forum Vauban, Extended Participation, History, Planning	“Modellstadtteil Vauban” project, with 715.800 Euro of funding from EU- LIFE programme from May 1997 to December 1999	http://www.vauban.de/themen/buergerbelebung/238-das-life-projekt	Andreas Delleske	de
„Vauban im Blick. Der Wegweiser für Vauban und Umgebung“	2015/2016 edition	Social Issues, Culture, Services	Vauban guide of institutions and initiatives on social issues, housing, health, education, music, arts & culture issues, shops and services, sports	Print brochure	eds. Stadtteilverein Vauban e.V. - Quartiersarbeit	de
“Quartier Vauban”	Last visited 2015-11-13	History, Planning, Mobility, Energy, Ecology,	Website by City of Freiburg on Vauban, with sub-pages: Sustainable Housing; urban planning and architecture; mobility concept; environment and energy; types of residence; history; publications, arial views and plans	http://www.freiburg.de/pb/Lde/208732.html	City of Freiburg	De (en, fr, it, es, ch)
„Nachhaltige Quartiersentwicklung in Freiburg-Vauban“	2005-03-10	History, Planning, Forum Vauban	Speech of Roland Veith / municipal working group Vauban at DBU congress in Osnabrück	http://www.dbu.de/media/240506043601da6f.pdf	Roland Veith / City of Freiburg	de
Specific projects in Vauban						
SUSI	Last visited 2015-11-13	SUSI	Website of Self-Organised Independent Settlement Initiative	http://susiprojekt.de/?page_id=7	SUSI Projekt	de
SUSI by Mietshäusersyndikat	Last visited 2015-11-13	SUSI, Funding	Presentation of SUSI on website of co-owner Mietshäusersyndikat	http://www.syndikat.org/de/projekte/susi/	Mietshäusersyndikat	de
“SUSI. Who’s that girl?”. Reader No5	2002 (5 th edition)	SUSI, History	Development and status quo of the initiative	Print brochure	S.U.S.I. Projekt Vauban	
Stadtteilzentrum Haus 37	Last visited 2015-11-13	Social Issues, Culture, District Association, Neighbourhood Work, GENOVA	Website of district community centre, with list of users/tenants of Haus 37	http://www.haus037.de/haus/liste-der-nutzer	Stadtteilzentrum Vauban 037 e.V.	de
Verein Autofreies Wohnen e.V.	Last visited 2015-11-13	Mobility	Website of Association for car-free living	www.autofreie-verein.de	Verein Autofreies Wohnen e.V.	de
GENOVA eG	Last visited 2015-11-13	GENOVA, Ecology, Social Issues,	Website of GENOVA cooperative, on membership/residence structure, ecological construction, social issues etc.	www.genova-freiburg.de	GENOVA Wohngenosenschaft Vauban eG	de

transformative social innovation theory

GENOVA Vauban Freiburg	Last revision 2006, last visited 2015-11-13	GENOVA, Ecology, Social Issues,	Presentation in portal of German ecovillages, privately initiated	http://oekosiedlungen.de/genova/steckbrief.htm	H.Wolpensinger	de
Passivhaus “Wohnen und Arbeiten”	last visited 2015-11-13	Housing, Baugruppe, Ecology, Energy, Water,	Website of “Baugruppe” co-housing project of 16 private builders/owners, the world’s first multi-use building of passive house standard	http://www.passivhaus-vauban.de	Andreas Delleske	De, en, fr, tr
DIVA GmbH & Co. KG	last visited 2015-11-13	Services, Arts, Culture, History	Website of arts and service center in “Haus50” of the original barrack buildings	http://www.diva-freiburg.de/	DIVA GmbH & Co. KG	de
Quartiersladen	last visited 2015-11-13	Services	Website of organic supermarket in GENOVA building complex II, run as a cooperative	http://www.quartiersladen.de	Quartiersladen eG	de
Kinderabenteuerhof Freiburg e.V.	last visited 2015-11-13	Social Affairs, Culture, Learning	Website of Children’s farm playground, organised by association	http://www.kinderabenteuerhof.de/	Kinderabenteuerhof Freiburg e.V.	De
Kantine	last visited 2015-11-13	Services, Social Affairs	Website of Kantine restaurant in Villabau, Member of Slowfood, organising cooking classes, specialised in vegetarian, vegan and raw food	http://www.kantinefreiburg.de/	Solveig Hansen – Kantine	De
VAUBANaise e eG	last visited 2015-11-13	Housing, Social Affairs	Online brochure and website of VAUBANaise project of ÖKOGENO cooperative,	http://www.oekogeno.de/dl/Vaubanaise_Broschuereweb.pdf	Ökogeno	De
WOGE Wohngruppe für Menschen mit Demenz	last visited 2015-11-13	Housing, Social Affairs, Generations	Website of WOGE Housing community with demented persons	http://www.wogevauban.de	WOGE e.V.	De

7.3 By journalists/ media Secondary Sources (Media, newspaper)

Media References	Year/day	Keywords/ Abstract	Link	Journal/ Newspaper	Author	Lang - uage
Vauban. Abenteuerspielplatz für Erwachsene	2011-20-10	Experimental ways of planning realised in Vauban	http://www.zeit.de/2011/07/Vauban	DIE ZEIT	Miriam Lau	de
„Nach 17 Jahren wird Freiburgs Quartier Vauban fertig“	2015-09-05	Finalisation of Vauban, after 17 years of planning and development, with Baugruppen, civic protests etc.	http://www.badische-zeitung.de/freiburg/nach-17-jahren-wird-freiburgs-quartier-vauban-fertig--110854941.html	<u>Badische Zeitung Report.</u>	Jelka Louisa Beule	de
„Vauban im Faktencheck“		Vauban data check-inhabitants	http://www.badische-zeitung.de/freiburg-sued/vauban-im-bz-faktencheck--59901405.html	<u>Badische Zeitung Report.</u>	Thomas Jäger	de
Vauban: a pioneering sustainable community in Germany	2010-08-20		http://www.ellenmacarthurfoundation.org/circular-economy/explore-more/initiatives-around-the-world/vauban-a-pioneering-sustainable-community-in-germany		Joss Blériot, Ellen MacArthur Foundation	en
Radio interview of SUSI inhabitant	2008-01-11		http://www.freieradios.net/portal/content.php?id=20492	Radio Dreyeckland Interview	(Lydia)	de

transformative social innovation theory

„gemeinsam planen, bauen, wohnen im Stadtteil Vauban, Freiburg“	2004	Video interviews with early Vauban residents	http://www.urbanes-wohnen.de/7-proj/film/filmvaub.html	Video by URBANES WOHNEN E.V.	Marina Mann for URBANES WOHNEN E.V.	de
„Vauban: Wo einst Soldaten exerzierten“	2010-09-13	History of Vauban from military barracks to model district	http://www.badische-zeitung.de/freiburg/vauban-wo-einst-soldaten-exerzierten--35323023.html	Badische Zeitung Report	Hans Sigmund	De
“Einmal Vauban, immer Vauban”	2015-09-05		http://www.badische-zeitung.de/freiburg/einmal-vauban-immer-vauban-x1x-110856101.html	Badische Zeitung Report	Jelka Louisa Beule	De
“In German Suburb, Life Goes On Without Cars”	2009-05-11	Insight to Vauban with focus on mobility concept	http://www.nytimes.com/2009/05/12/science/earth/12suburb.html?_r=0	New York Times Report	Elisabeth Rosenthal	En
„Neue Lebensformen in Freiburg. Vorzeigeviertel für Ökologiebewusstsein“	2011-06-02	Energy efficiency and funding sources in Vauban as compared to other places	http://www.faz.net/aktuell/wirtschaft/wirtschaftspolitik/neue-lebensformen-in-freiburg-vorzeigeviertel-fuer-oeffekologiebewusstsein-14386.html	Frankfurter Allgemeine Zeitung Report	Steffen Uttich, Uta Bittner	De
„Eine Stadt der Zukunft. Freiburger Vorzeigeviertel Vauban wird Opfer seines eigenen Erfolgs“	2013-06-04	Vauban as model eco-district rather failed for many social aspects	http://www.deutschlandradio.de/eine-stadt-der-zukunft.1001.de.html?dram:article_id=248796#	Deutschlandradio Kultur, radio article (transcript)	Conrad Lay	De
„Wohngenosenschaft GENOVA berücksichtigt Alter und Einkommen ihrer Mieter“	2013-08-12	GENOVA's policy of regulation of rental prices, example of Kitty Weis	http://www.badische-zeitung.de/freiburg/wohngenoschaft-genova-beruecksichtigt-alter-und-einkommen-ihrer-mieter-74322998.html	Badische Zeitung Report	Anja Bochtler	De
„Das Projekt GENOVA im Freiburger Vaubanquartier zieht optimistisch Bilanz“	2002-09-09	Project GENOVA looks back on its development in an optimistic balance	http://www.vauban.de/foren?view=topic&catid=16&id=637#90	Badische Zeitung Report	Gabriele Bobka	de

C. List of interviews

Interviewee ID	Function/ Organisation Position	Date & place	Language	Interviewer, data status	Duration
local case 2: Vauban (DE)					AP, IK
VB1	Member of board, coordinator of staff of Quartiersarbeit, GENOVA founding member	19.10.2015 from 4pm, Haus37 / Office of Quartiersarbeit	DE	IK&AP, rec., transcript	2:42h
VB2	Long-term citizen of Vauban (tenant of Baugruppen project, previous member of Stadtteilverein management board	22.10.15 from 11am, DIVA / Musikstudio	DE	AP, rec., transcript	1:06h
VB3	Vauban citizen (Baugruppen project), former coordinator of Freiburg Green City Cluster	26.10.15 from 3pm, Georg-Elser-Str. 2, community room	DE	AP, rec., transcript	0:47h
VB4	SUSI tenant, permaculture designer	27.10.15 from 3pm, SUSI HausB, 1 st floor	DE	AP, rec., transcript	0:30h
VB5	co-founder of Abenteuerhof	eMail exchange	DE	IK	
VB6	Staff of Bürgerbau, consultancy to “Baugruppen”	15.10.2015, on the train	DE	AP, talk	0:20h

transformative social innovation theory

VB7	Member of executive board	e-mail, feedback to report	DE	IK
VB8	Officer at municipal Environmental Department	12.10.2015 , eMail exchange	DE	AP
VB9	Association car-free living, Vauban	26.01.2016, e-mail exchange	DE	IK

D. List of meetings and events attended

No.	Meeting and events attended as part of data collection, dialogues, etc.	Purpose of attending	Date and duration	Attending from the research group
E1	Information event of GartenCoop CSA initiative in Haus37	Discussing self-organised distribution/supply of GartenCoop produce to members	February 2010, 3hours	AP
E2	Seed and plant exchange at SUSI Cafe	Theoretical and practical exchange with citizens on self-supply with food	April 2012, 1 hour	AP
E3	Vauban as a case of sustainable living: workshop in Vaubanaise, guided tour through Vauban	EU grundtvig-project ENESWO, education for sustainable living with partners from WWF Turkey and University of Utrecht: the case of Vauban	May,2012, 3-6	IK
E3	SUSI 20 years anniversary celebration	Discussion with SUSI tenants and Vauban citizens about development of SUSI and other projects	June 2013, 2 days	AP
E4	Workshop on renewable energies and energy saving in households in Haus37	Organising information and discussion with interested citizens	22.October 2014, 2hours	AP
E5	Joint cooking and community dinners at "Kantine" restaurant	Discussing community-organised food supply from the region	14.August 2015, 04.September 2015, 16.October 2015, each 2 hours	AP
E6	Vauban, house 37, Kindergarten room	dance events at Vauban	May and October 2015	IK
E7	Numerous study visits to Vauban	Facilitating exchange of experience between interested visitors and Vauban stakeholders, s.a. Andreas Delleske of Wohnen&Arbeiten, Erich Lutz of GENOVA, staff of Green City Hotel Vauban, Andreas Dilger of Abenteuerspielplatz/ eco-vinyard, Hartmut Wagner of Wandelgarten Urban garden	from 2009 – today, usually 2-4 hours per visit or workshop	AP
E8	Expert exchange with Green City tour guides, organised by municipal Green City Office	Receiving updates on municipal plans and activities for further development of the Green City Freiburg	From 2010 – today, once per year	AP