

Short visit grant 5454 – final report

Architectural heritage protection of the central area of Bucharest – mapping ways of visualisation in GIS and archives (so-called “registries” or taxonomy/ontology entries)

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Host: Acad. Oberrat Dipl.-Ing. Alex DILL, KIT

1. Purpose of the visit

Aim of the project will be to introduce the Romanian Modernist heritage by means of digital methods to the German community which organises since 10 years a conference to its preservation (see report by the applicant at <http://e-conservationline.com/content/view/977>). In 2000 when the applicant was working at the host institution for this Short Visit Grant, a survey of an area comprising 250 buildings in the centre of Bucharest was performed and the data introduced in a GIS system. This area includes the main N-S boulevard of Bucharest, an unique section in Europe being built in the interwar time. Today the boulevard is facing conservation problems, in the context of thermal isolation and seismic retrofit, an example recently altered this way to be analysed being a multistory building by German architect Rudolf Fränkel, who immigrated to Romania that time. The KIT disposes about an archive of this and other German architects in exile. Contacts will be done to access archives of other Modernist architects which might be at the family of the emigrated architect Richard Bordenache in Karlsruhe (contacts available), some buildings of which are in the investigated area. The intervention problems in this context were subject of the doctorate of the applicant, to be discussed. During the work in Karlsruhe those years the cultural heritage value of the buildings surveyed was not taken into consideration in the digital editing, and this is the aim of the visit. The KIT disposes of the software to introduce this data (incl. architect, monument value, urban planning protected zone value) in frame of the geo-innovation planning network (<http://www.stgp.uni-karlsruhe.de/index.php>), where it is aimed to later present the results. Aim is also to include the typology into the digital taxonomy overview of the Global Earthquake Model, with corresponding glossary entries, where KIT is a partner. Alternative database applications for the photographic and textual data on these buildings for the web (ex. for the DOCOMOMO registries, where Romania is not a member, but contributed to the UIA project on the topic <http://www.archi.fr/UIA/>) will be discussed. Selected architect's biographies will be written during the stay and included in the Routledge Encyclopedia of Modernism (<http://remodernism.wikispaces.com/> ; an encyclopedia being understood as another form of thesaurus and ontology), where the applicant was invited as an author. Some others will build the subject of subsequent urban traces applications. All these different ways of entering information contribute to mapping of the use of digital methods in Europe.

Apart of these exchanges it is aimed to attend the following:

- 25-26 January: conference „The architectural heritage“, together with DOCOMOMO, the Getty Conservation Institute (Los Angeles) and German partners
(http://www.docomomo.de/attachments/328_1%20%20%20FLYER-Das%20Architekton...)

- The exhibition "Inter-Facing the Archive. The Media Art Portal netzspannung.org" at the Centre for Art and Media (ZKM) ([http://on1.zkm.de/zkm/stories/storyReader\\$8059](http://on1.zkm.de/zkm/stories/storyReader$8059))

- 5th of February: Virtuelle Realität - Das Intelligente Sensor-Aktor-Systeme (ISAS) am KIT, Alumni conference (<http://www.rsm.kit.edu/3726.php>)

The contact with the KIT includes also including a report on NeDiMAH in the alumni Newsletter, more about this coming soon.

2. Description of the work carried out during the visit

Research:

We performed research regarding representation of the issues in question (Modernist architecture) in GIS, case study central Bucharest. More details in the explanation of results.

In this place we would like to only highlight two issues.

Study of the representation in board games. We had the opportunity to compare hard paper representation to digital one in the investigation of the game "Pillars of the Earth". The game is dedicated to the architectural endeavour of the construction of a cathedral using resources such as people and materials, like in construction management. The advantage of the digital method is the better implementation of the rules of the game. Although useful for our general research on project management, in the particular research project this short visit refers to it was useful to introduce us to the comparison between "material" and "digital", leading to conclusion on the material model and the 3D model which later led to the developed concept. Also, in games we have to do with the symbolic dimension, and with no issues of scale. Below there are images of the digital and the material version.

The screenshot shows a web browser window displaying the game "Pillars of the Earth" on the website BrettspielWelt. The main window shows the game board with various resources and buildings. Overlaid windows include a chat window with player messages, a "Newbie Help" window with a "Welcome to BrettspielWelt" message, and a product page for "Pillars of the Earth" by Kosmos. The product page lists the publisher as Kosmos, the designer as Michael Rieneck and Stefan Stadler, the number of players as 2-4, the game length as 60-120 minutes, the category as Cathedral Building, the age as 12+, and the price as Ca. 30 Euro.



The church which has to be built in “Pillars of the Earth” follows two different approaches: in the “material” version it is made out of simple volumes which are put one next to the others, like in building a model at an urban scale for architects or in building a model in Google’s Building modeler, about which we will talk at results. Jeffrey Head, former visitor at the Canadian Centre for Architecture, observed how digital tools such as SketchUp are the toys of today in educating the imagination of architects. In the “digital” version the church is built like with a 3D printer.

The game taught with how to deal with constructing in a way it is dealt with in civil engineering. A building consists out of devices for its elements. But when doing project management in architecture at the overall scale the spaces are considered, building elements coming in question at detail scale (the m^3 of built space or the m^2 of floor space for a different function determine the costs, and not the resources). We should come back to this when developing the concept and thinking of the representation. In architecture the space is represented, considering the walls monolithic, and this is how they are in archive plans or in Nolli’s plans which we will see. The structural elements appear very rarely.

Writing reports for the Routledge Encyclopedia of Modernism (<http://remodernism.wikispaces.com/>) – the report on Virginia Haret is already in review, and the stay in Karlsruhe with the documentary visit in frame of the first conference contributed to writing about Otto Haessler. Envisaged architects are Cassiano Branco (Portuguese architect), GM Cantacuzino (Romanian architect), Horia Creanga (Romanian architect), Henrietta Delavrancea-Gibory (Romanian woman architect), Giuseppe de Finetti (Italian architect), Rudolf Fraenkel (German architect immigrated to Romania, present in a database in Karlsruhe), Marcel Iancu (Romanian architect), Giovanni Muzio (Italian architect), Joze Plecnik (Slovene architect), Gio Ponti (Italian architect), Giuseppe Terragni (Italian architect). It is proposed to include also Richard Bordenache. Literature was collected during the stay. For some of

these architects urban parcours are available (for Virginia Haret, Rudolf Fraenkel, Giuseppe Terragni and Joze Plecnik self drawn), for Henrietta Delavrancea-Gibory and Marcel Iancu from the Romanian Architects' Chamber. The concept of this parcours has been adapted to the concept developed during this stay of digital representation.

Public events attendance:

25-26. January 2013 - Attendance of the conference "Das architektonische Erbe" (The architectural heritage) – programme: http://www.docomomo.de/attachments/328_1%20%20%20FLYER-Das%20Architektonische%20Erbe-%20KIT-Karlsruhe-25-01-2013.pdf – a review of the conference was submitted for publication to the e-conservation journal <http://www.e-conservationline.com/> - online open access publication (accepted). I have been invited to represent Romania in the ICOMOS scientific committee ISC20C, to be discussed in the meeting on the 27th of February

Abstract: The years 2004-2010 marked a series of seven conferences on the topic The architectural heritage – about the contemporary approach to the buildings of Modernity, about which we wrote a review in the journal. In 2011, additionally to their aim on practicing architects, theory elements were introduced. 2013 marks the 10th anniversary of conferences organized by Alex Dill, dealing with the architectural heritage, and was at the same time DOCOMOMO (international committee for DOcumentation and COnservation of buildings, sites and neighbourhoods of the MOdern MOvement) technology seminar. Unlike the former exhibitions accompanying the conference, this year there were accompanying excursions to conservation and intervention works on sites of the Modern Movement in Germany.

30. January – Book Launch 357 824 ha de paysages Agence Ter by Henri Bava, Olivier Philippe, Michel Hössler (Auteur) (<http://www.amazon.fr/357-824-paysages-Agence-Ter/dp/2871431965>) - the moderator Akad. Oberrat Rob van Gool invited me to present my own book in a next such meeting

31. January – 1. February - Attendance of the conference "New Babylon. Architecture and Urbanism after Crisis" <http://www.after-crisis.com/> (the conference was a cooperation of the host institute and the landscape institute who invited me)

5. February – Attendance of the alumni event "Virtuelle Realität - Das Intelligente Sensor-Aktor-Systeme (ISAS) am KIT", (<http://www.rsm.kit.edu/3726.php>)

Exhibition visits:

30. January - ZKM permanent collection <http://www.zkm.de/>, in particular the plants work (<http://blog.zkm.de/blog/einblick/eine-restauratorin-bei-der-gartenarbeit/>) and "Legible city", also investigated in the Digital Art Conservation project – such results, together with a review of the workshop in November, will be published in the Romanian journal Arhitext (article accepted)

30. January - The exhibition "Inter-Facing the Archive. The Media Art Portal netzspannung.org" at the Centre for Art and Media (ZKM) ([http://on1.zkm.de/zkm/stories/storyReader\\$8059](http://on1.zkm.de/zkm/stories/storyReader$8059))

1. February – Badisches Landesmuseum Karlsruhe – perspective views of the transformation of the garden of the castle in preparation to the 2015 300 years anniversary of the city

2. February – “Digital Art Works. The Challenges of Conservation” at the Haus für Elektronische Künste, Basel (<http://www.haus-ek.org/de/node/419>) - a review of the exhibition was submitted for publication to the e-conservation journal <http://www.e-conservationline.com/> - online open access publication

Abstract: “Digital Media Art in the Upper Rhine Valley. Conservation – Restoration – Sustainability” is a European project that run from January 2010 to December 2012 by ZKM (Centre for Art and Media) and five partners from France and Switzerland in the upper Rhine valley. The exhibition, entitled: “Digital Art Conservation. The Challenges of Conservation” curated by Bernhard Serexhe, Chiara Marchini Camia, and Arnauld Obermann was presented at various partners, and we visited it at the House of Electronic Arts in Basel, in early February 2013. It features the ten case studies from the project, from iconic media art pieces such as Jeffrey Shaw’s Legible city to contemporary Macromedia Director works such as Antoine Schmitt’s “still living”. Older works display the problem of hardware which became difficult to preserve, sometimes of analogue signals, which draws attention to the future of contemporary. Some works were updated in the frame of the project.

Seminar participation:

The host Akad. Oberrat Dipl.-Ing. Alex Dill invited the participation to the seminar “Materiality” (<https://studium.kit.edu/meineuniversitaet/Seiten/vorlesungsverzeichnis.aspx?page=event.asp&gguid=0x234169c32957c74c9ddb2b0119167f3c>)

28. January – discussion of the presentations:

- Subkultur/underdogs/Außenseiter
- Smart Materials

4. February – discussion of the presentations:

- ESPAGNA – Design Tendenzen
- Recycling Wunder
- Schwer + Leicht – Innovationen
- Licht + Design

Through this we can see that the discussions on concepts were covered, unlike in the earlier seminars, which dealt with specific designers. But we missed “CLOUD – visions of digital future”

Resulting will be a paper on the architecture of the shelves – based on my own seminar work in 1996 under his supervision (to be submitted into Urbanism.Aritectura. Constructii. – a Romanian journal). The model will be submitted to the “Sustainable house” competition in Bursa constructiilor (http://www.constructiibursa.ro/s=concur_s_arhitectura_2013.html)

The issue of materiality puts the point on the virtual representation in architecture (not only shelf architecture but also computer games), as constructed architecture is characterized exactly by this materiality. However, the seminar also explored new technologies, including the virtual. In this context we later explored the materiality of 3D printing, which doesn’t relate to construction logics as in toys and games (see the work on board games investigation)

The following image shows the plan of the seminar:

15. Okt. 2012	Start : MATERIALITY / Literatur / Video Andy Goldsworthy		Materialität	1. Übg
22. Okt.	1.Vorl. Einführung in das Fach a+m - Themenverteilung		Lehren + Forschen	2. Übg.
29. Okt.	2.Vorl. Architektur, Design + Kunst im 20sten Jhd.		Spiritualität	3. Übg.
05. Nov.	3. Vorl. Architektur + Design + Kunst der MODERNE			
07. Nov.	ÜBUNGSPROJEKT	AUSGABE „LERNMÖBEL“	PLENUM	12.00 Uhr
12. Nov.	4. Vorl. Architektur + Design + Kunst und das MATERIAL			
19. Nov.	Kunst	Josef Beuys Wolfgang Laib	Anna Noack / Marie Stemmel Kai F. / Milena Knorr	
26. Nov.	Architektur	Peter Zumthor „Ort, Kontext, Mat.“ J. Meyer H. „Kommunikation“	Marlene Hübel / Lisa Kahl Erhan Arslan /	
03. Dez.	Interieur + Architektur	Lilly Reich mit Ludwig Mies van der Rohe	Stefan Hechinger / Elina Östereicher	
	Interieur + Architektur	Eileen Gray / Charlotte Perriand mit Jean Eduard Jeanneret (L. C.)	Lara V. / Jaqueline de Rooy	
05. Dez.	ÜBUNGSPROJEKT	ABGABE + SCHLUSSKRITIK	PLENUM Beginn	10.00 Uhr
		„LERNMÖBEL“		
10. Dez.	Design	Otl Aicher / Max Bill (HFG ULM) Volker Albus / Konstantin Grcic	Tuba Ay / Monika Schäfer N.N.	

WEIHNACHTEN 2012 / NEUJAHR 2013

14. Jan. 2013	Tendenzen	CLOUD - Visionen digitaler Zukunft BODY Design Fashion – Design	Jeremy Jamet / Pauline Doisonet Thomas Mildener/Simon Heikerd Santiago Vinan
21. Jan.	digital + analog	Licht + Design Subkultur /Underdogs / Außenseiter	Ersi Q./Florian R./Jessika Schmidt Anastasia D.
25. Jan.	„TECHNOLOGIE „	10. KARLSRUHER TAGUNG	9.00 – 18.00 Uhr
26. Jan.	EXKURSION	KARLSRUHE DAMMERSTOCK	14.00 Uhr
		Internationales Symposium - Theorie u. Praxis zeitgen. Architektur	
28. Jan.	Forschungen	Smart Materials Schwer + Leicht / Innovationen	Louis Vasco Jana Prazakowa / Attila L.
30. Jan.	Nachhaltigkeit	Recycling Wunder / perpetuum mobile Bio-Bio / nachwachsende Rohstoffe	Matei D. / Guillaume C.
04. Feb.	die Scene	Zur Zukunft des Design / Kritik Events, Meetings, Messen, Awards Kunst u. Design-Schulen im Vergleich ESPAGNA - Design Tendenzen	N.N. N.N. Elisa Sanchez
11. Feb.	Zusammenfassung	aktuelle Tendenzen Abschlussdiskussion / Ausblick/ Kritik	Plenum

Meetings:

23. January – Springer Verlag, Heidelberg – Dr. Robert Doe, publishing editor – discussion on future publications, invitation to publish in City, Territory, Architecture (<http://www.springer.com/earth+sciences+and+geography/geography/journal/40410>), a just launched open access journal (to which I already submitted some papers)

24. January – Alumni service of the KIT – Stephanie Menner – resulting into an interview about the activity of NeDiMAH (<http://nedimah.eu/news/interview>)

- Dagmar Lezuo, Landscape Institute of the KIT – invitation to the book launch and the second conference

5. February - Liska Surkemper, assistant of Prof. Uwe Hochmuth, in charge for the projects on “Digital memory” at the University of Arts and Design Karlsruhe – invitation to take part in NeDiMAH activities

– Dr. Andreas Megerle, alumni service of the Institute for Regional Science – discussion on further cooperation within DAAD and ERASMUS schemes, and the “Planning the landscape” book

- Dagmar Lezuo, Prof. Henri Bava and Hartmut Friedel – discussion on further cooperation, ex. inscription as alumni in the Le:Notre programme, visit of students on DAAD basis, and the book “Planning the landscape”
- Andreas Bordenache – exchange between Karlsruhe and Romania, study of the past in architecture (discussion of my dissertation)

Other discussions:

29. January on phone (because of illness) with Ana Wojtachno, LIT Verlag about the publication of the dissertation, a subject related to the conference where I was invited. During the stay I also dealt with asking for permissions from various archives to be reproduced in this publication, and received correspondence from the Germany based publisher.

3. Description of the main results obtained

During the visit it turned out that there were more public events to attend and more meetings for networking than to allow to work as deeply on the GIS database as wished for. However, a table on the monument status of buildings studied during the doctorate was compiled and included in a submitted ADGEO publication (written during the visit), which builds on the analysis of the contribution of GIS to 3D city models, investigated during an STSM in Portugal in September 2012.



Fig. 1. The area investigated at the KIT in 2000 and available for further studies in GIS (for which for example the monuments list was compiled).

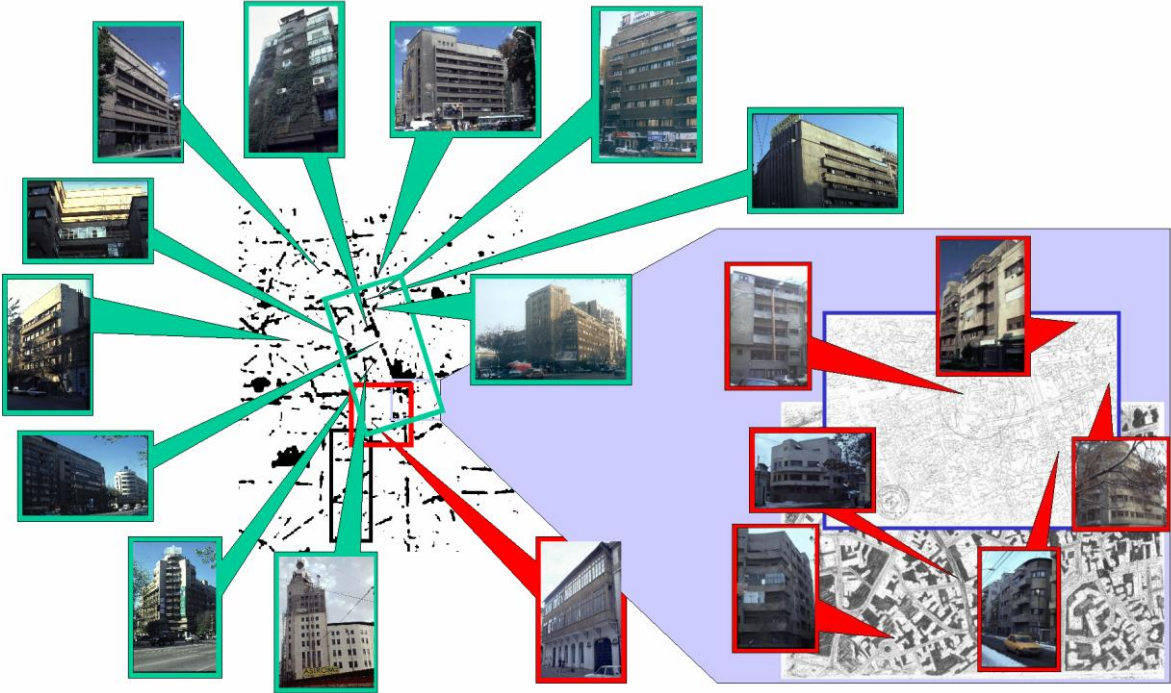


Fig. 2. The presence of some of the investigated buildings in this and adjacent areas, for the one zoomed at (works of Marcel Janco) we come later with an urban parcours.

Further development of the concept built on what we developed in Faro during the COST STSM. During the STSM of Maria BOSTENARU DAN ("Ion Mincu" University of Architecture and Urban Planning, Bucharest, Romania) at the CIEO, University of Algarve (supervision Thomas PANAGOPOULOS) a concept of a Web application to understand the impact of the 1755 earthquake on Lisbon has been developed. For the implementation of the concept another funds are being applied for, also in Portugal, at CHAIA, University of Evora, and for the analysis of the results at the University of Arts and Design, Karlsruhe, Germany, where the initial concept comes from. The concept is based on the successive stages in a movie, implemented through Adobe Director. The role of the movie metaphor, different of that of video, in digital humanities, is a topic of future research. The initial concept of converting 2D symbolic type-medieval depictions to 3D has been initially developed for emblematic spaces at the University of Art and Design in Karlsruhe, where this research is aimed to conclude with focusing on the role of film in catastrophe research of the historic accident, from the Lisbon tsunami and Stalker to their meet in the Tohoku earthquake 2011. One of the stages is the 3D modeling of 72 landmark buildings of pre 1755 Lisbon earthquake. These are identified in both the historic city tissue and in the contemporary city tissue, to learn lessons on historical development and urban vulnerability. For this identification a guided tour and a game are employed, as well as without 2D or 3D data a timeline. Improvement between the connections of these parts of the movie are possible. We focused in creating less demanding 3D depictions, as well as on investigating the role of games in the representation of architecture and urban planning issues, as the current development of a similar model at CHAIA is based on the real time object oriented rendering, and open to participation through a Web platform (like ours but) in Second Life. Lessons can be learned also for the location in Bucharest. A future development might concern the stereo superposition of real and virtual depiction, in 3D model and in photography/engraving. Also the common tissue will be dealt of, to make the transition to another level of detail of the building scale of pombalino buildings. A literature list to all these topics has been set up and is being reviewed, an adnotated list being the result of future research.

For the application aimed for during the short visit at KIT (central Bucharest) we had to extend the concept in a different direction. First, given the focus of the conference, we gained some distance from the earthquake hazard relationship and focused on Modernist heritage protection. We kept the idea of having a guided tour and a game to identify landmarks. Therefore in the game the landmarks will be identified with the simplified 3D models derived from their 2D sketches, as we can see for example in the Marcel Janco parcours developed by the Romanian architects' chamber (Fig. 3). Such an approach is aimed for for all the architects identified for the Encyclopedia of Modernism to which we relate later, for ex. in Fig. 4 for Joze Plecnik.

It is Marcel Janco for whom Augustin Ioan made an exercise of so-called „morphogenesis”, which is what we intended in the concept implemented in the Libeskind exercise. Outgoing from a 2D shape a 3D shape (Fig. 5, 6). We did such an exercise outgoing from a cube volume using the grey tones when converting a Mondrian painting to assess heights (Fig. 7). In our exercise of utopia we suggest also a building based on cube shapes (<http://bostenaru.natkat.org/ucyw/archi/hhausz1.htm>), but the main finding related to this is the one already mentioned regarding the setting together of volumes in building urban models in „material” form or in Google’s Building Maker.



Fig. 3. Marcel Janco urban parcour, developed by e-cart, see also the situation in Fig. 2



Fig. 4. Jozse Plecnik urban parcour (self made)

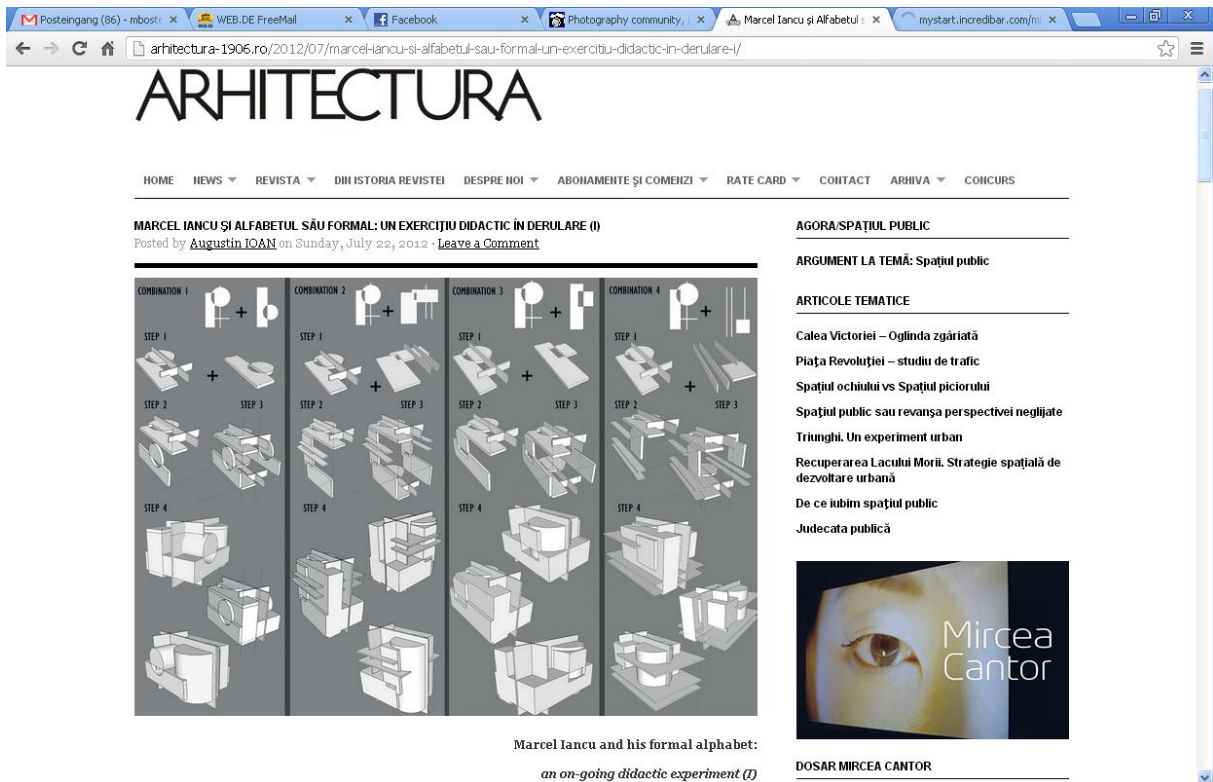


Fig. 5: Morphogenesis exercise for Marcel Janco's architecture.



Fig. 6. Morphogenesis from 2D to 3D space in the Libeskind exercise (above) and 2D schematic representations similar to those in the Marcel Janco parcours for the exercise done in Faro.

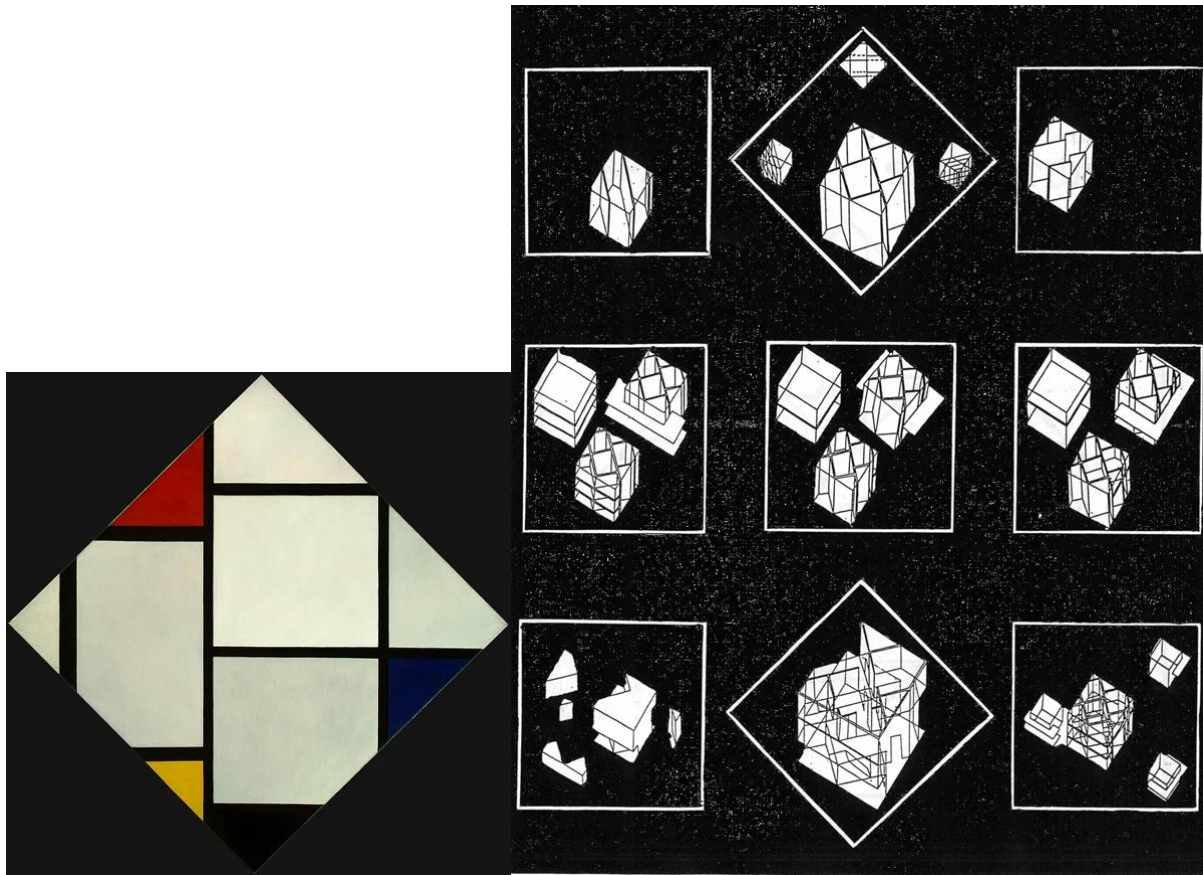


Fig. 7. Morphogenesis exercise from the volume of a cube, using a Mondrian painting. Useful also to see the role of diagonal braces.

Looking at these morphogenesis exercises we observe that the completed ones go out from the layout of the plan. However, in what we propose for Lisbon and also for the urban parcours we should go out from the perspective drawing. In this, we shall follow volumes as set together in the building of urban scale models (material or in Google's Building Maker), while when going out of the plan the interior space within such a volume of constraint shape (ex. of a cube in our own) was done.

It is possible to make thematic maps not only for the architects mentioned, but also for issues related to disasters, for example buildings resulting resilient from the cooperation between the architect and the engineer, a parcours included also in the study zone from this research and exemplified in <http://www.nat-hazards-earth-syst-sci.net/5/397/2005/nhess-5-397-2005.html> . Other thematic maps related to disasters may include the strategic elements for disaster management, aiming at the morphology of the city, as explained by Florescu.

Coming back to what we mentioned in doing the works, 3D printing (Fig. 8) follows the way it used to be drawn in architecture, with solid walls, at the time of ink drawings made black with ink, to emphasize the space, in an approach related to the above explained morphogenesis. The building of models at detail scale followed however what is essential for „materiality”: the construction, something involved by going over from paper architecture to the built object on the site. The walls had to bear the ceilings. Such a logic is also followed when developing toys such as a 3D puzzle (Fig. 8).



Fig. 8. Model in 3D printing (<http://www.printare3d.ro>), following the digital, like in a 3D section, and model in constructive logic of a 3D puzzle

This developed concept is compatible with a contemporary approach in urban planning which is called „strategic planning”. As opposed to traditional planning where all buildings and all city zones are treated and detailed equally in the master plan, in strategic planning some of these deserve more attention, taking the shape of pilot projects. In our approach to the case study of a Modernist neighbourhood in Northern Bucharest (including another area with Marcel Janco buildings, Rudolf Fraenkel, Virginia Haret and Henrietta Delavrancea buildings – all architects we will write about in the Encyclopedia) we applied strategic planning: for directing the development we developed a vision, for which there are action plans at different levels of planning from the urban level to that of the building element over the level of building, instead of just different urban planning levels. But the key element in our approach to strategic planning are not the social aspects of voluntary agreements in the democratisation of planning which is participatism but the approach to the problem, with its many facets. For this the SWOT analysis has been approached in an innovative way not defined by the report, following the way Kevin Lynch read the „image of the city”. This project in itself can be a demonstration or pilot project. The next level on which we see innovation is the one in regulation and financial undertaking. The regulation we propose is drawn on the basis of the innovative analysis. And one of the actions to achieve the objectives of the strategy is the establishment of an environmental budget. The final step to achieve innovation is the education, which has been designed as a feedback mechanism. In Fig. 9. We see this Kevin Lynch approach.

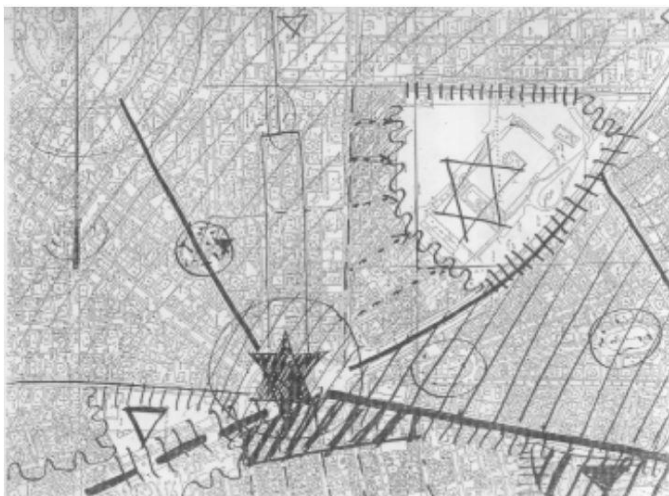


Fig. 9. Urban analysis of a modernist neighbourhood in Bucharest following Kevin Lynch principles

We explained in an article regarding multi-criteria decision how these action plan levels relate to each other (<http://www.nat-hazards-earth-syst-sci.net/4/485/2004/nhess-4-485-2004.html>), from which Fig. 10 is extracted. In that figure we showed that from the urban zone level there shall be a zoom to the building level, and from the building level a zoom to the building element level. However, that one is a paper from 2004. We followed that principle of zooming when presenting our work in HTML with help of image maps (<http://bostenaru.natkat.org/ucyw/archi/tauf1.htm> or <http://bostenaru.natkat.org/ucyw/archi/hhausz1.htm>) created using traditional drawing and model creation. However, with today's techniques in CAD drawing and 3D printing these issues of scale aren't so important anymore. It is the contribution of digital methods. This is the main contribution of the concept developed during this STSM compared to the concept in Fig. 6: the elimination of scale issues.

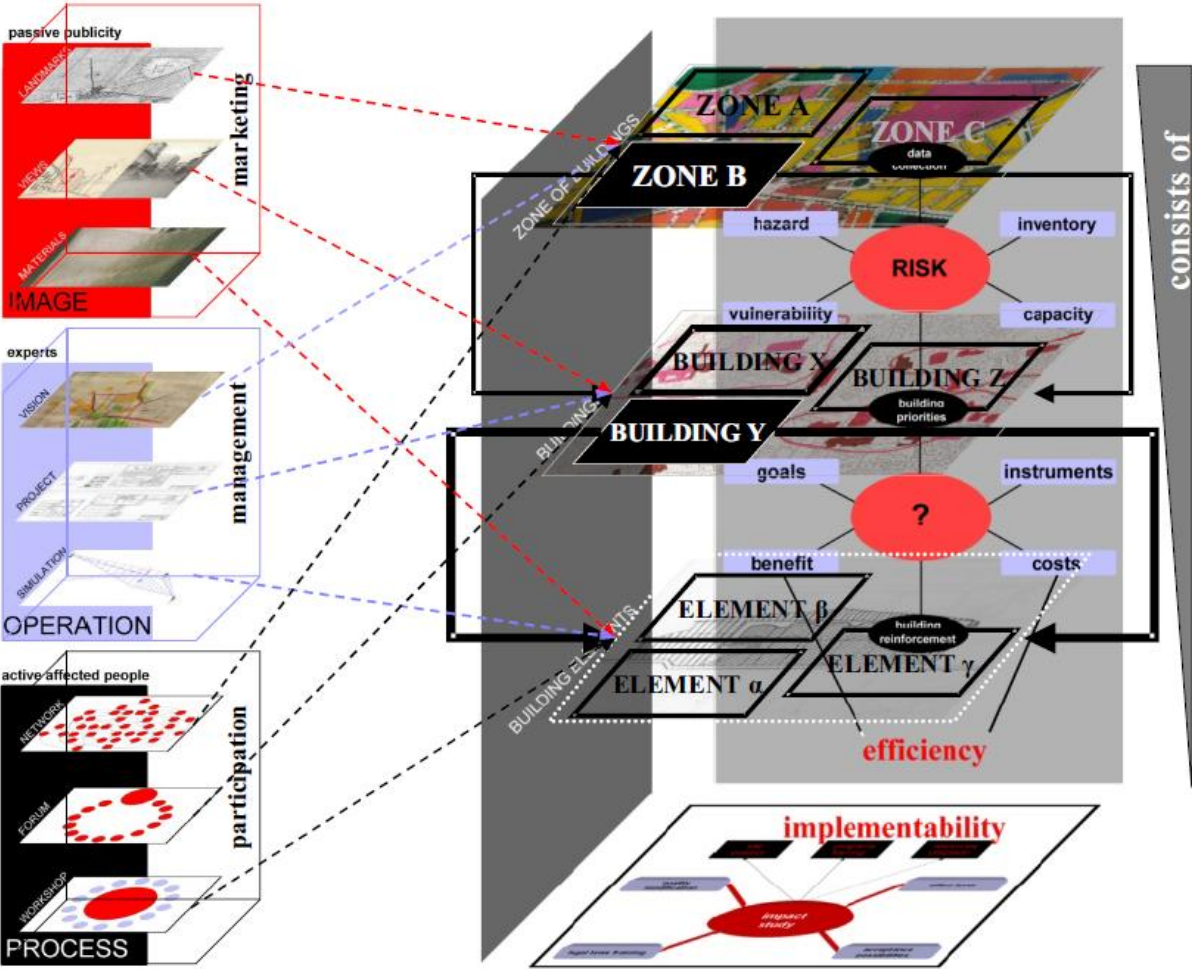


Fig. 10. Zooming from urban zone until element level and the connected instruments of participation, management & marketing. The image is inspired from layering in GIS but there are scale differences.

In our approach against scale issues we are supported by such an ancient concept as the baroque plan of Rome by Nolli (Fig. 11), coming thus back to Baroque times as in the initial investigation about Lisbon. In the plan of Nolli public buildings are presented with the detail of plans, just like a model of a building in 1:200-1:50 scale, while common buildings are a black mass, just like urban models in 1:500-1:1000 scale. The two scales come together, as they can come in GIS layers today, when we can zoom with computer technology.

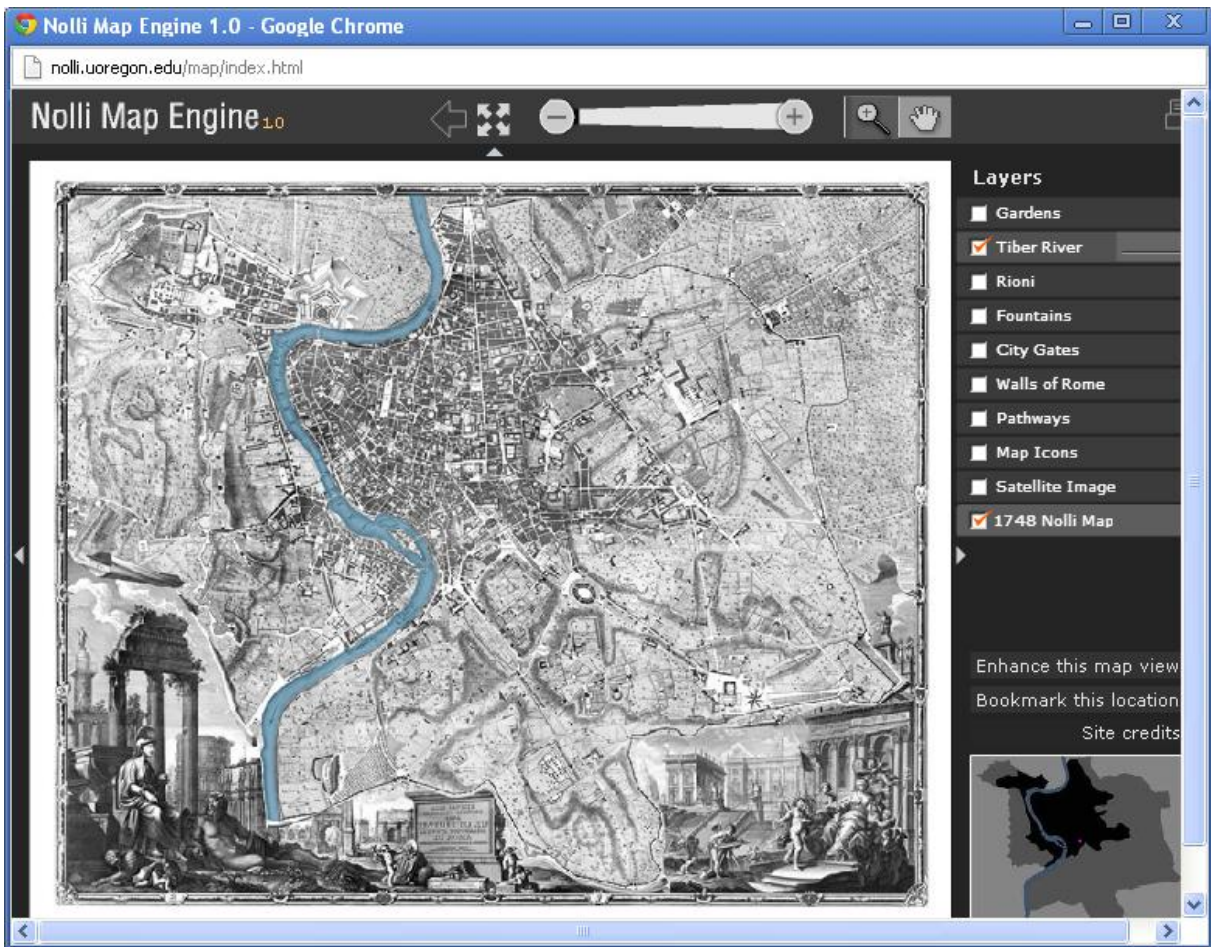
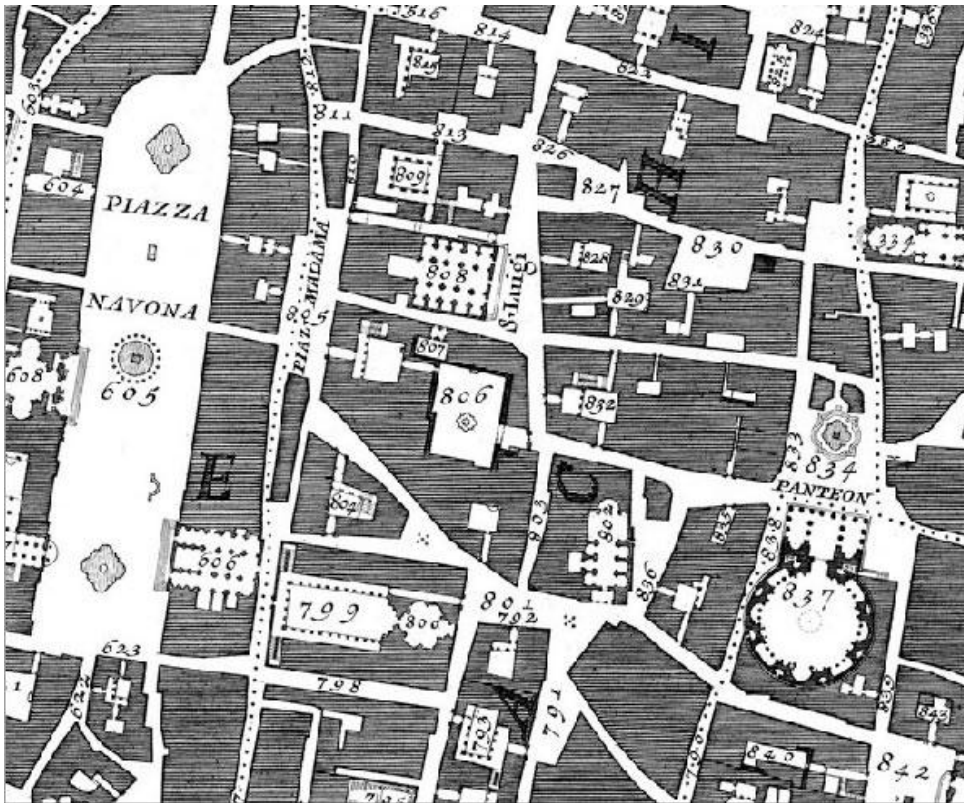


Fig. 11. The Nolli plan of Rome: a detail of the map and the digital interactive map

We analysed in several papers of us (the mentioned NHESS paper and a paper on the 3D representation of the street http://www.tsi.lv/Research/Conference/RelStat-11/Proceedings/COST_Bostenaru_Dan_corr_ED.pdf) how the elements definitory for the urban image can be highlighted outgoing from photography. It is also what Building Maker uses when simplifying the photography to simple volumes, and what we intend for going 2D 3D in simple shape for the 3D model of representative buildings. What is additionally shown in Fig. 12 is also the language of the space like in the Libeskind exercise – a language at the level of the urban space, not of the interior space, based on the same perception language. The correlation of the two leads us to Nollí's perception. At the same time, this concept of the combination could be applied for urban assemblies as those identified as monuments, or, certain features of the volume can lead to recognising landmarks or zones as in Kevin Lynch's description.

Therefore we propose for the second part of the scenographic application, which is the guided tour, to have different GIS layers, corresponding to the representation conventions of different scale, but which can be superposed being at the same scale. The buildings setting together the parcours (being those of one of the chosen architects or the buildings damaged by the earthquake, or the successful collaboration between architect and engineer) are detailed at the level of plans. We investigated how to represent such plans during our reintegration grant and which is their importance and their typology. Through this we make an addition to that investigation, done mainly at building level, where we differentiated between attaching the information to the space of a room or to the building element, again an issue of scale, but also of timing in estimating the future project costs. The rest of the buildings are similar to Nollí's common buildings.

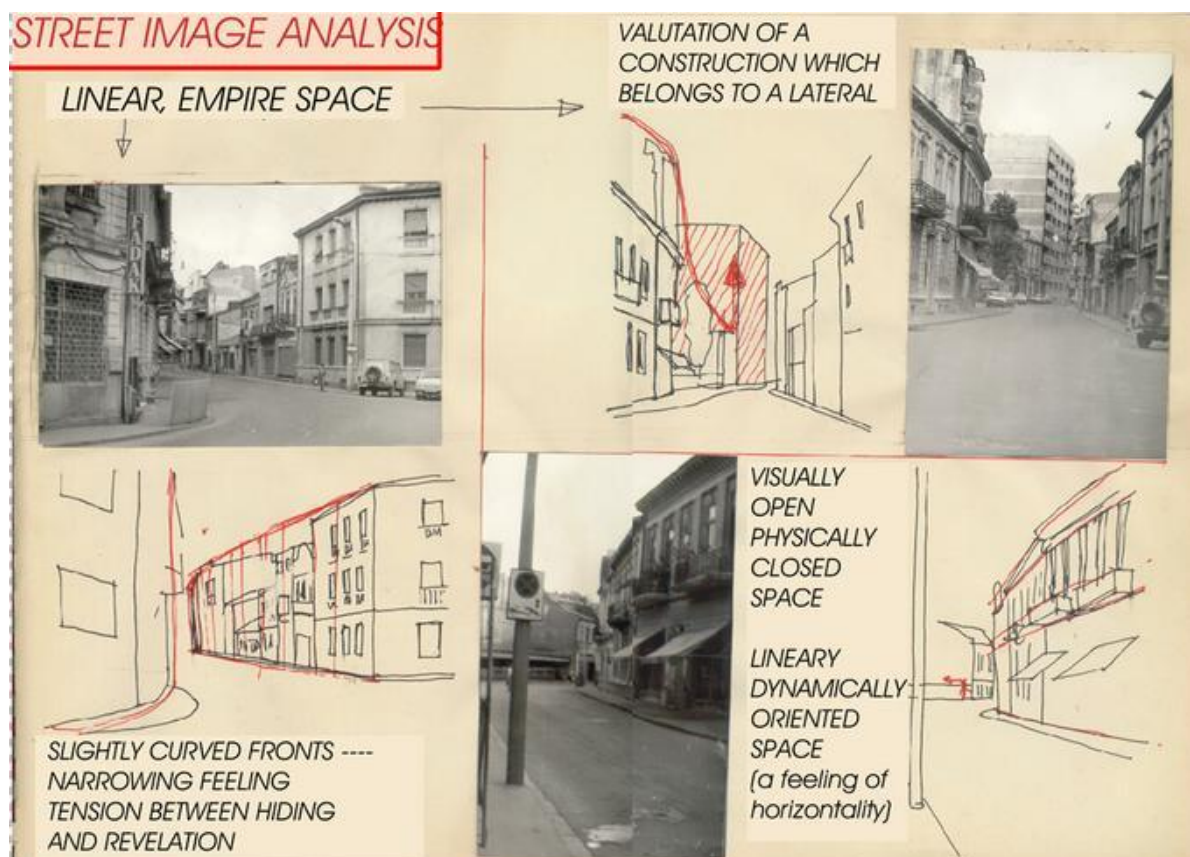


Fig. 12 Generation of 2D representation out of photographic representation highlighting urban issues

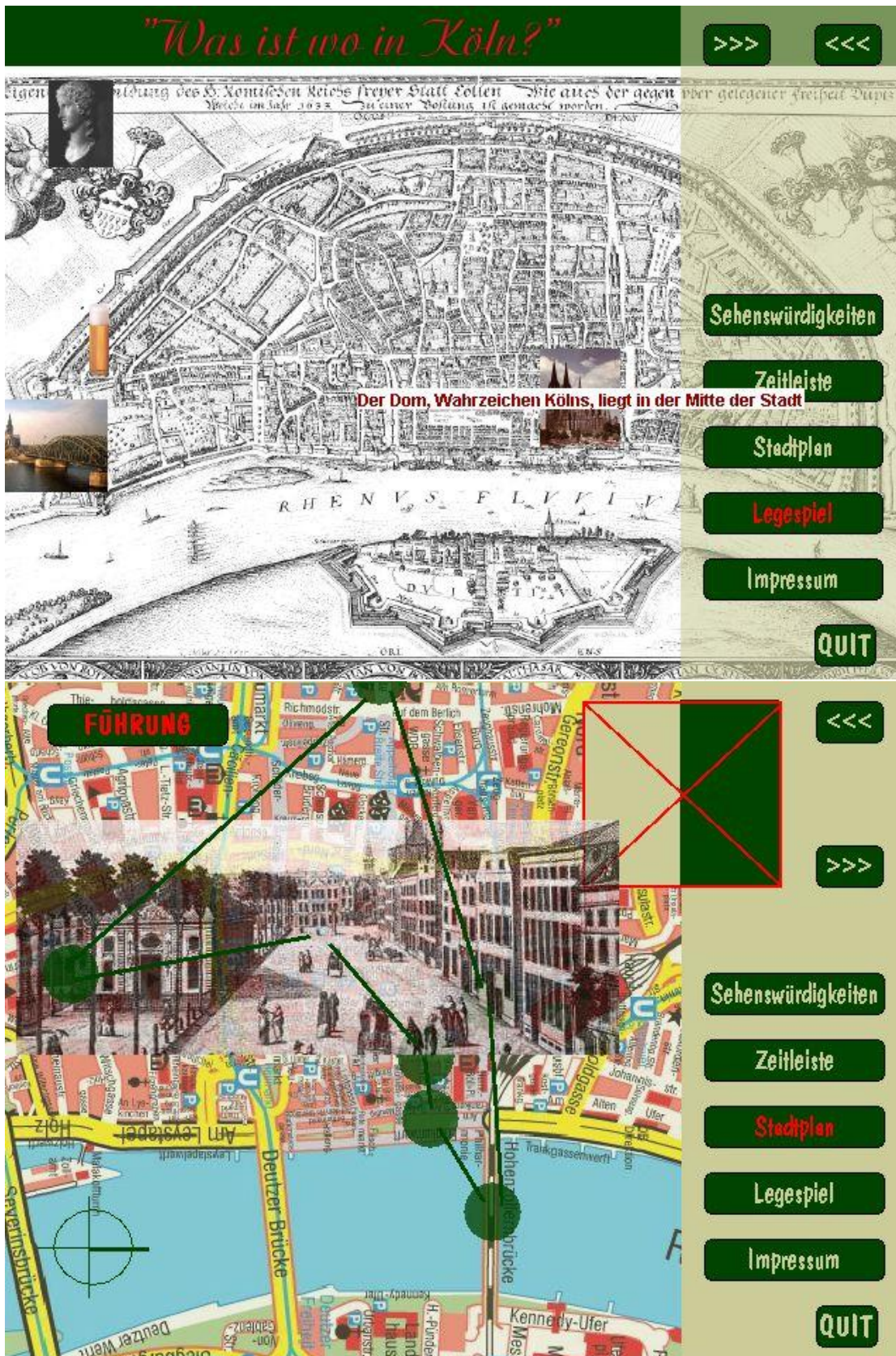


Fig. 13: Urban game, to be populated with the 3D models (up) and guided tour, to be done over superposed layers like in Nolli's plan of Rome (down)

Fig. 13 shows some screenshots of the proposed application.

We observe that in the guided tour apart of the dots to be replaced by scale plans of the buildings also the photograph can be included, to be blended when scrolling above, the advantage of an interactive movie.

4. Future collaboration with host institution (if applicable)

A number of cooperations with the host institution (KIT) exist:

- ERASMUS, derived from the former TEMPUS programme, existing since the early 1990s
- ERASMUS LLP Disaster resilience (<http://www.disaster-resilience.net/>)

Further cooperation will be possible in frame of the ECLAS/Le:Notre scheme for landscape planning, for which the home university is in process of being accepted but I am also eligible as KIT alumni, the KIT being already a member

Cooperation is envisaged between DOCOMOMO Germany (Documentation and Conservation of the Modern Movement) and the Romanian ICOMOS, since Romania doesn't have a DOCOMOMO chapter but I've been invited in the ICOMOS ISC20C committee, which co-organised the conference and deals with the same. A later Getty library research grant on the topic is possible. Alex Dill intends to come to Romania in this frame to held a lecture about Villa Tugendhat, together with NeDiMAH.

Invitation for presenting the book I was partly working on while in Karlsruhe at a next Faculty of Architecture Library meeting. The book title is "Interwar architecture with reinforced concrete structure exposed to multihazard in European context. Intervention in the Romanian and Italian context"

For the summer there is an application in frame of DAAD to visit the host, and the University of Art and Design, results in April.

It is thought to apply for a funding of the maps and CDs with guides to the architects outlined in this report to the European Cultural Foundation Collaborative Grants, deadline 25th of March, maybe between one cultural NGO (such as ICOMOS, DOCOMOMO) and the university in the other country, to be discussed at the forthcoming meetings of these associations (ICOMOS Romania 27th of February).

It is planned to be applied for a Humboldt fellowship for experienced researchers between the home university and the host university for this grant.

An application to develop the Köln concept is in evaluation for a grant at the Central European University Institute of Advanced Study.

5. Projected publications/articles resulting or to result from your grant

Conference review ("Technology in the Architecture of Modernism. The architectural heritage. 10th anniversary conference in Karlsruhe on architecture – theory and practice) and exhibition (title) review in e-conservation

Virginia Haret (in review) and others (a total of 13-14 architects, see above) in the Routledge Encyclopedia of Modernism

“Living highrise” for the Urbanism.Arhitectura.Constructii journal

Review of NeDiMAH in Arhitext

Interview for the Alumni Newsletter

Article following joint work with a Romanian project and the STSM in Portugal into ADGEO (in review)

The research results themselves (the concept) are planned to be submitted to City, Territory and Architecture, the Springer journal reported about.

The grant also helped in work with other publications:

- Ongoing work on “Planning the landscape. Conservation and intervention” (meeting with publisher, author and reviewers)
- The publication of the dissertation (communication with the publisher and archives, further cooperation for the launch)
- Submission of reviews and discussion papers to the newly launched Springer journal
- Submission of earlier HfG and KIT works to DHQ, in the light of the learnings of the Digital Art Conservation exhibition

6. Other comments (if any)

We also applied to be alumni of the University of Art and Design.

Unfortunately time did not permit to do also a visit to discuss with the coordination in Würzburg.

On the 4th and 8th of March respectively we will apply with colleagues at the home institution to do hard copy and digital parcours for the works of the architects Virginia Haret, Rudolf Fraenkel and Richard Bordenache, to be financed by the Romanian Architects’ Stamp.