Designing in spatial planning

(Spatial planning designs)

As of 10.2010, M. Nollert (Edit29.8.2011, Florian Stellmacher; Translation 10.2016, Lars Kaiser)

Term

Designing in spatial planning is not yet known as its own discipline. With regard to current and future spatial problems and conflicts, it is increasingly important to think in large spatial relationships and to create ideas of the desired future development.

What is designing in spatial planning?

A spatial planning design

- is the result of a design process,
- formulates a desired spatial development for a specific space,
- visualises solution options for existing problems

Tasks of a spatial planning design I

- Exemplary testing of basic solution approaches on site.
- Exploring the range of possible solutions and marginal conditions for formal procedures.
- Exploring conflicts and critical circumstances and, if possible, to quantify them.
- Qualified rejection of infeasible alternatives.
- Serves as a supporting measure to generate knowledge to specific spatial situations.

Tasks of a spatial planning design II

The tasks of a spatial planning design involve not only formulating solutions, but also exploring present as well as future conflict situations.

Additionally, in contrast to e.g. a building design, a spatial planning design has to deal with the qualified rejection as well as infeasible solutions.

The overview plays and especially important role for an unbiased decision on a future development, as well as a help for arguing with actors of spatial relevance.

Such an overview often doesn't exist, often because only one design exists or the solution hasn't been found.

A sole designer or designing team often don't have the capability to cover the whole range, which is why a design in spatial planning is often created by multiple teams under competitive circumstances.

Result of a spatial planning design I

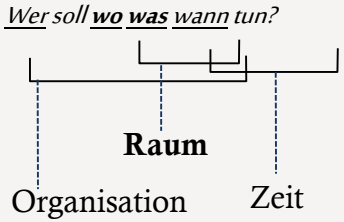
The core object of a design in spatial planning is the **imagination of a desired development** of a larger space. However, already the choice of words shows that designing in spatial planning can have nothing to do with an imagination nor with the development of a space. In fact, a design in spatial planning **shows possible development directions or a solution possibility.**

Components of a design

The focus of a design lies on the desired **spatial and material development**, and therefore also on the spatial representation of the solution.

In order to make these transparent and comprehensible it is important to involve **the temporal relationships** as well as all contributing **actors and necessary decisions,** also known as:

The **"triad" Space-Time-Organisation**

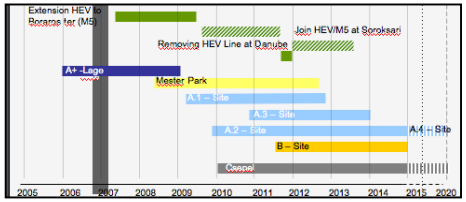


Result of a spatial planning design II

Space

Spatial visualisation of the solution possibility:

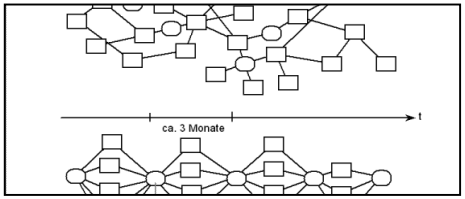
- Spatial dependencies of the solution
- Overview on conflicts and the concepts
- Argumentative representation
- Consolidations



Time

Sequence of proposed actions & decisions:

- Planning horizon
- Delay times
- Temporal relationships and constraints



Organisation

Proposals on processes and involved actors:

- Process form to solve upcoming tasks
- (Strategic) decisions, which have to be met
- Operative measures (e.g. exchange operations)

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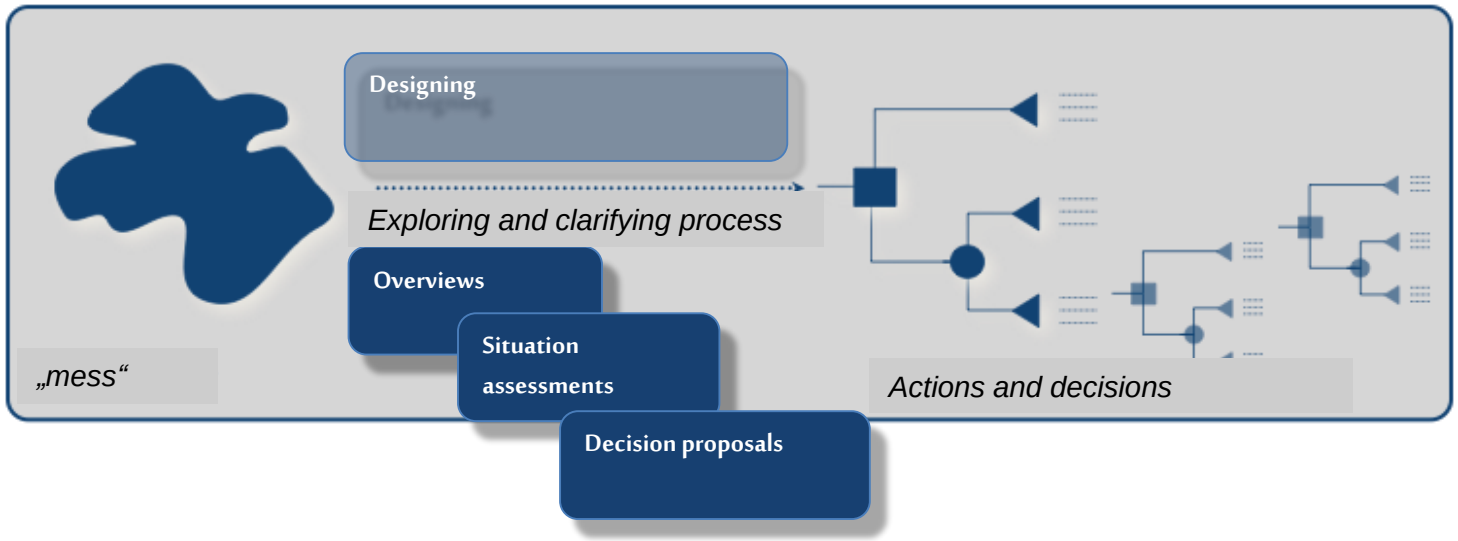
Integration of designing into planning



Representation R. Signer, M. Nollert

- allows structuring and visualisation of knowledge and situation assessments
- supports exploring and clarifying spatial conflicts and contributes to the creation and preservation of planning overviews.
- Affirms an argumentation pro or contra a decision and plays an important part of recommendations and decisions proposals.

Teaching module designing in spatial planning

Possible sequence of a design

Overview/situation assessment/first ideas

- Conflict overview– Record/check conflicts, find important conflicts for development
- Find influences and dependencies from super- and subordinate levels
- First solution approaches/maxims/visions

Concept

- Overall concept
- Temporal overview
- Organisational recommendations

Consolidation and implementation

- To check the sustainability of a design, check relevant locations/topics on a detailed scale.
- Quantities and possibilities of implementation
- Temporal implementation

Examining the found solution

A tough examination of the found solutions is essential for the robustness of a design.

- **Within the team**: Try to disprove the solutions!
- **In the concentration phase**: The relevant building blocks of a concept have to be verified with regards to their implementation.
- **Within the design process**: Critical examination and accompaniment of the presented activities by an accompanying group of experts.

→ Designing= Process: Only when many teams work on a task simultaneously, the maxim "Don't leave out anything important" (Rule of total evidence) can be kept true.

Qualified discarding I

In a spatial planning design the discarded solutions are at least as important as the pursued solution.

…. Why is discarding important?

- A discarded solution is an important hint of what shouldn't be done.
- The discussion process goes on further: There is a danger that rejected solutions are forgotten and "newly invented".
- According to Popper, discarding is one of the three columns of knowledge gain:
  You can't prove hypotheses, only disprove/eliminate them!
- Carrying on and purposely naming discarded solution approaches enforces the justification of the chosen solution option.
- Sometimes, it is only that when an existing option of action is discarded that leeway for a clarifying process is generated.

→ That is why discarded solutions should be documented with justification (qualified discarding).

Qualified discarding II

Options of action are not always visible on first sight.

That is why being critical and suspicious may prove worthwhile concerning your own, but also external plans, concepts and argumentations:

- Not everything that is proposed in (official) plan and documents necessarily has to be true.
- Errors can be found everywhere: The responsibility of a planner is to find as many as possible.

Qualified discarding III

- Search for contradictions in your own plans, but also in your sources!
- Question concepts and statements
- Be critical when re-enacting argumentations

- Before discarding, try to design:
  - Try finding solutions early on
  - Work with hypotheses

Conditions for discarding

The main condition to discard solutions is to check the decisions made and their argumentation:

- A check may lead to important information regarding weaknesses of the option of action or its argumentation.
- A check also requires to explore all influencing circumstances.

If one or more options of action or argumentations fail a check, two options arise:

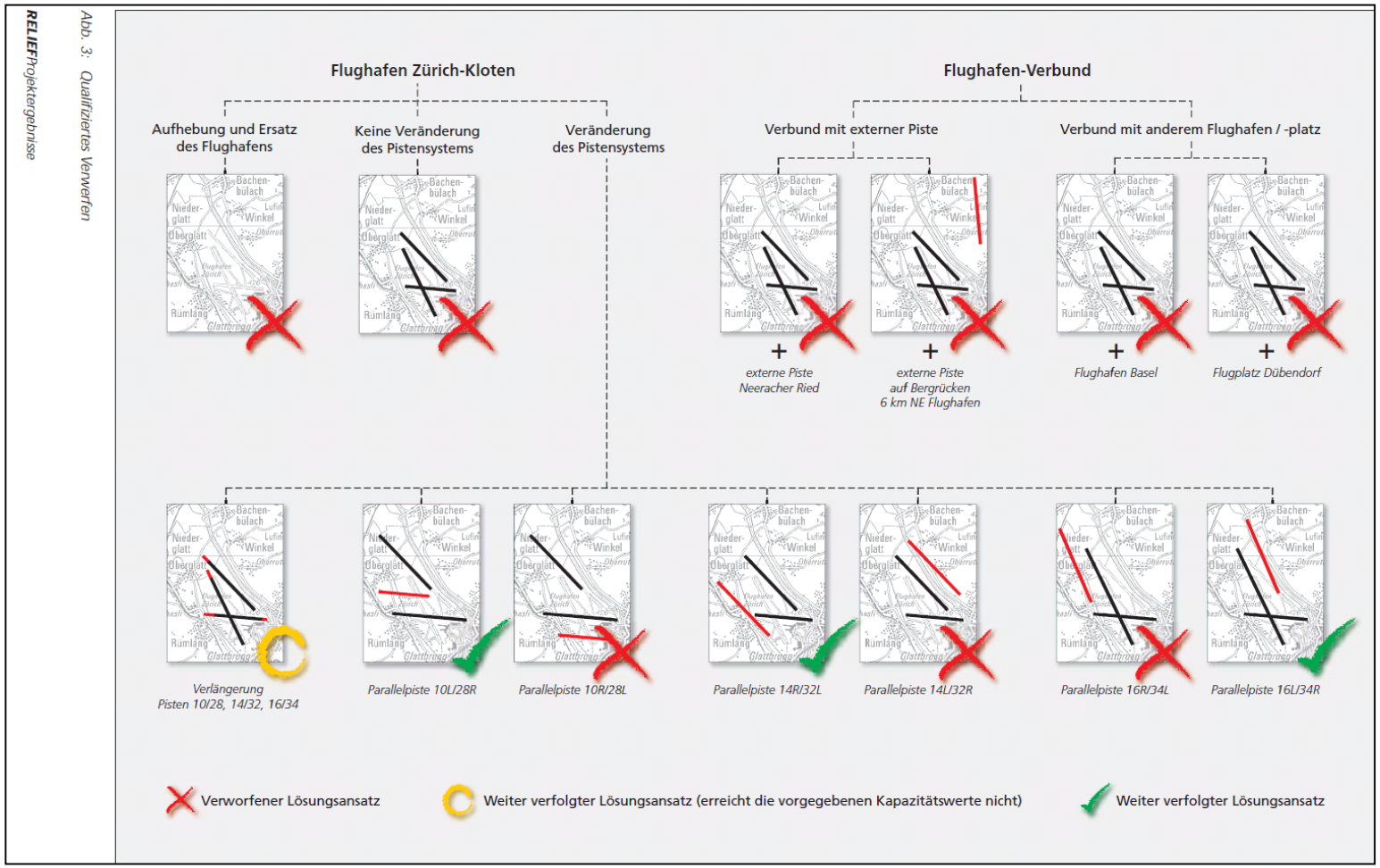
- Improve the options of action and their argumentation:
  - Resolve the identified weaknesses
  - Add flanking measures
  - Checked options of action improve their robustness.
- You are qualified to discard them .

Qualified discarding – Questions

Qualified discarding means to justify the rejection of options of action. The following questions may help:

- Are their reasons to discard an option of action?
- Do the disadvantages outweigh the advantages?
- Are the risks too large?
- Is the ratio between expenses and effects appropriate?
- Does the possible time frame for the implementation comply with the needs?
- Can the solution be implemented in legs?

Teaching module designing in spatial planning



Example: RELIEF – Test planning procedure for a future development of Zurich Airport; Source:

Amt für Raumordnung und Vermessung des Kt. ZH (7.Juli 2004): Bericht zur Erschliessung der Projektergebnisse. RELIEF. Raumentwicklungs-konzept für die Flughafenregion und langfristige Infrastrukturentwicklung des Flughafens. pdf download: (Access 08.10.2010): http://www.kantonalplanung.zh.ch/internet/bd/arv/kplan/de/raum_control/flughafen_1/flughafen_4/flughafen_4a.html

Designing is communication I

A design is also a mean of communication:

The result of designing – the design – is often a plan, which cannot communicate the whole content.

The choice of the mean of communication in a spatial planning design is an important factor that has to be considered.

Important criteria are:

- What should be displayed?
- What scale?
- What level of detail?
- Are any dependencies obvious?
- Is the conflict or the solution apparent?

Designing is communication II

With these criteria, one can choose between:

- Sketches of ideas,
- Overview and detail plans,
- models,
- depictions of concepts,
- Sketches of principles,
- 3D-visualisations,
- texts,
- photos,
- photomontages,
- films
- ....

Summary

A spatial planning design is:

- An instrument of exploring and checking:
  - Recognize new conflicts and explore problems
  - Check the imagination on conflicts
  - Check imaginations on spatial development
- Hypothesis:
  - Every stroke, every proposal is a thesis that has to be checked.
  - The final product of a design is checked by its implementation.
- Means of communication:
  - Communicate on the imaginations of future spatial developments

Literature and sources

Akademie für Raumforschung und Landesplanung - ARL (Hrsg.) (2011): Grundriss der Raumordnung und Raumentwicklung. Kapitel 4. Methoden der Raumplanung. Hannover

Maurer, J. (1995): Maximen für Planer. = ORL-Schriften 47/1995. Zürich