

Workshop A	Workshop B	Workshop C
Applicability of (new) reconstruction materials	Climate and moisture in fortresses	State of the art & best practices reconstruction techniques
Gerco Meijer	Collin Bootsveld	Nest Lernout
This room	Behind coffee room	Downstairs
Toon	Marieke	Anneke

Applicability of (new) reconstruction materials

- Always start by analysing your brick and mortar
- The skills of the mason are very important; train young masons at the building site
- Not enough supervision on quality; usually only financial control
- Quality of old mortar recipes
- Use zinc anodes to prevent oxidation
- Iron with a higher carbon percentage oxidate less

Climate and moisture in fortresses

- Start with your re-use at the buildings that were originally planned for human use in former times. It will save energy, investments, technical adjustments; stay close to the original concepts.
- Checklist of original functions: ventilation and drainage
- Investments should be seen in relation to future energy costs. And what about CO2 reduction?
- Insulation could be an effective method, but is it allowed in listed monuments?

State of the art & best practices reconstruction techniques

- What story do you want to tell with a fortress?
Be selective in classifying and protecting
- Be aware of the risks (technical and financial) during restoration
- Reversible solutions
- Ground covered buildings: what's the quickest method? Is taking of the ground always necessary?

Workshops bats

Workshop a	Workshop b	Workshop c	Workshop d
bat-friendly management plan	Creative ways to attract visitors	Offering alternative spaces	Bat-friendly restoration
Fons Bongers	Stefan Vreugdenhil	Herman Limpens	Eric Jansen
Marieke Muilwijk	Anneke van Mispelaar	Toon van der Ouderaa	Dimitra Hierck
Next door, front room	Next door, back room	This room	upstairs
<ul style="list-style-type: none"> •What do you need to design a management plan? •Who are the experts? •Who is responsible for ecological surveys (owner, user or government)? •Which functions can be combined with bats and what is the influence of activities on bats? 	<ul style="list-style-type: none"> •How to show the bats to the visitors without disturbing them? •What is the 'unique selling point' of bats? •Can one make money with bats? 	<ul style="list-style-type: none"> •How to optimise an object as alternative bat site? •Can bats be persuaded to move? •What to do when the bats don't use your alternative space? •Which additional research is needed for the New Dutch Waterline to start in time with adapting objects as alternative bat sites? 	<ul style="list-style-type: none"> •How to organise a bat-friendly restoration •How much are the extra expenses? •Are there periods one can perform a 'normal' restoration? •Do you need to use special materials?

Creative ways to attract visitors

- Bats have such an interesting life; enough to tell about to the public for education and entertainment, on several places in the NHW
- Meet a bat in the NHW. It this the one thing that connects the forts (literally) shared problem but also shared opportunity

Bat friendly restoration

- It is possible restore including bats?
- Mixed answers. Yes, but... communication, knowledge, planning. No, you have to choose between culture or nature

Alternative spaces

- Can bats be persuaded to move?
No, bats are unpredictable. We don't know the key factor...
- What when the bats don't use their new space?
Propose an experiment to force them; this is illegal. Who dares?
- Additional research: how do bats use their environment, next to the hibernation period

Bat friendly management plan

- A good management plan starts with questions, not with biased answers
- It is not about the report, the process of making a management plan is the most important
- Statement: 'The management plan of one object differs from the plan of the several objects.'

Workshops vegetation

Workshop a	Workshop b	Workshop c	Workshop d
Historic vegetation	Ecological values; protecting flora during restoration	Landscape and experiencing plantation and vegetation on fortifications	damage caused by vegetation
Martijn Boosten, Probos	Gitty Korsuize, gemeente Utrecht	Rob Zakee, projectbureau NHW	Jan Kamphuis Rijksgebouwendienst
4 Barracks, left side	5 Barracks, left side	19 Barracks, right side	This room
Marieke	Peter	Toon	Anneke

Influence of vegetation on walls

- Positive relation between vegetation and wall
- Trees are not the problem, neglect is
- A lot we don't know about the relation between vegetation, moist (frost) walls and ground covered buildings
- RGD is planning an article about the Naarden case (restoration, brickwork and vegetation)

Protecting flora during restoration

- Maintain sources of vegetation (refugia) in place, different objects nearby or in time
- Only ecologists have a lot of technical questions. For example
 - in relation to moisture
 - quick lichen growth on tiles?

Experiencing vegetation and landscape aspects

- Few people visit fortresses only for historical reasons
- The site must be attractive from different point of views (landscape, history, things to do)
- Diversity of vegetation is only one aspect of this

Historic vegetation

- European wide variation in planting schemes: different military strategies?
- Preservation and development of historic vegetation in line with current and future use
- Mature trees on top of buildings: were they planned?
- If you don't have access to original documents/archives, use paleo-ecological research (pollen-analysis etc).