Documentation and monitoring in managing timber objects

A partnership project between the Krzysztof Kluk Museum of Agriculture and Ryfylke Museum

Management of buildings and building traditions at Ryfylke Museum

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Introduction to Ryfylke Museum

Ryfylke Museum is the museum for the eight municipalities that were merged in connection with a municipal unification process in the 1960s to form the Ryfylke Region. Together these municipalities make up more than half of Rogaland County's land area, although they only have slightly over 7% of its population. This is a large, still difficultly travelled and rather bleak region that nonetheless offers great diversity and a rich cultural life. Ryfylke got its own museum in 1981, admittedly a slightly used institution. The new Ryfylke Museum was established on the groundwork of the old Rogaland Folk Museum.

Rogaland Folk Museum was founded in 1936. At that time 15 years had passed since the need of a folk museum had first been voiced in public. The goal was to build an open-air museum in Stavanger containing farm buildings from Jæren and Ryfylke, and urban buildings from Stavanger. The museum's first building was the ancient loft from Guggedal farm in Bråtveit. The reason stated for moving it to the museum was that it was "the oldest and the most distinctive loft still left in Rogaland". The oldest part of the loft was later dated to 1281. The loft was moved to Mostun in Stavanger about where Rogaland Art Museum is now located. The occasion was marked by having a wedding party parade from Kongsgård to the museum and with important speeches about the people of Rogaland, their character and their love of their home district through the ages.

The folk museum at Mosvatn was not a success, however. Its board lacked funds and was distracted by other business. The founder, board chairman and enthusiast Peder Heskestad was told of a unique group of buildings at Li farm in Suldal. With great enthusiasm, he immediately started up work on repairing the buildings' roofs. In the Ryfylke district voices were raised about establishing a Ryfylke museum as an alternative to the museum in town. Sand was seen as being suitable by the local press. But then World War II began and museum work stopped, except by a museum committee in Sauda that began collecting buildings and objects for a local museum.

Although the idea of a folk museum in Stavanger was still popular, actual museum work moved in completely different directions. After the war ended, efforts were instead aimed at preserving buildings in their original settings. These became the foundation of the museum as we now know it.

The first buildings bought on their original site stood on the cottar's farm Røynevarden high above Suldal Lake. These six buildings were in poor condition and difficult to reach. This was in 1947/48, and the road through Suldal was first opened in 1980. Now plans had changed from founding a folk museum in town to having rural museums in the countryside. This was a novel idea concerning museums in national circles also but gained strong support from the national Norwegian association for museums. The idea of preserving buildings in their original settings gained approval as being both culturally and historically

correct and also economically sound, but many years were to pass before this became a common practice in museums.

What was worse was that the museum board started growing numbers of maintenance projects, some of them without a basis in written agreements. It appears that they found small flour mills especially attractive. After Ryfylke Museum was founded, some of these projects had to be stopped. But we still have mill installations in Kvednahola in Ritland/Vasshus and in Øystad, both in Suldal.

1 Li farm situated above Hyls Fjord is one of the old farms belonging to Ryfylke Museum.

We had now reached the 1950s and the idea of an open-air museum in Stavanger was as good as abandoned. Peder Heskestad worked with local interests in Nærbø to make Grødaland farm into a museum. The buildings on one of the Grødaland farmsteads were bought, restored and opened as a rural museum in 1952. The first buildings bought on their original site stood on the cottar's farm Røynevarden high above Suldal Lake. These six buildings were in poor condition and difficult to reach. This was in 1947/48, and the road through Suldal was first opened in 1980. Now plans had changed from founding a folk museum in town to having rural museums in the countryside. This was a novel idea concerning museums in national circles also but gained strong support from the national Norwegian association for museums. The idea of preserving buildings in their original settings gained approval as being culturally and historically correct and also economically sound, but many years were to pass before this became a common practice in museums as included in the museum in 1958. After the reorganization of Rogaland's museums, these buildings were transferred to Hå rural museum

in 1983. After the rural museum was consolidated with Jær Museum, responsibility for the buildings was also transferred to that museum.

At this same time in the 1950s, the museum board had begun to look for a suitable farm in Ryfylke to serve as the main base for activities there. The two farms, both in Suldal, being considered were Hoftun, where the museum had carried out maintenance work, and Kolbeinstveit. The latter was chosen, seemingly because of the reasonable price. A contract on leasing was first signed. In 1959, the museum bought the buildings. Guggedal loft was returned from Stavanger and placed in the farmyard at Kolbeinstveit.

2 Guggedal loft is one of the two log buildings from Rogaland listed in the survey of preserved wooden buildings from the Middle Ages. It is now at Kolbeinstveit, one of Ryfylke Museum's major sites.

With this the museum now had a large and impressive farm at Nærbø in Jæren, a large and impressive farm with strong historic memories of local personages from Suldal in Ryfylke, and the cottar's farm Røynevarden near Suldal Lake. In addition to the farms, it also had several individual buildings and mill installations. This was an excellent collection but another large group of buildings was added before the new age brought professional personnel and public organization of developments. This was Viga farm in Hjelmeland, bought by Hjelmeland municipality in 1970 and transferred to the museum in 1975.

The museum now was responsible for about 50 larger and smaller buildings. In the mid-1970s, the museum shared one employee with the Ullandhaug Farm Trust, but had no

caretaker and scanty resources for engaging other workers. After being reorganized as a regional museum in 1981, the museum staff was increased, first to one full-time employee and soon two, but even now with resources that only allowed for hiring craftsmen for single projects or for limited periods. It was not until 1990 that the museum was able to employ a full-time craftsman.

At the time of reorganization in 1981, the museum office was moved from Stavanger to Suldal. This was because the museum's largest collections were located there. The office was first housed in Suldal's agricultural department and later as a tenant in the so-called Rasmussen warehouse at Nordenden in Sand. The museum eventually bought the larger Nesa warehouse in the same area. After being restored, this building was taken into use in 1991. But the museum still lacked a proper workshop, nor did it have suitable storage and archive facilities. It took many years of work before good and suitable office, workshop and storage facilities were built alongside the Nesa warehouse. This was finished in late fall of 2008 and officially taken into use in January of the next year.

One of the needs that now were met was office space for the increased of number staff members. By the end of 2012, the museum's staff numbered 18 permanent employees.

In addition to maintaining the antiquarian buildings and presenting public activities in them, the museum was now able to assume new tasks. These were the acquiring of a new museum building in Sauda, Håkon's Street 51-53 in Åbøbyen, to house urban industrial culture; documentation of the greatest hydroelectric development project in Norway, the Ulla-Førre installation; the documentation of immigration and development of Ryfylke as a culturally diversified society; the restoration and management of one of the last Ryfylke coasters, "Brødrene af Sand"; the documentation of fruit and berry cultivation in Hjelmeland; publications on sheep husbandry and mountain pasturage, building traditions and folk music etc. etc., as well as extensive research on local history. Then there was cultivation of tomatoes on Finnøy, integration of the museum and the library on Rennesøy, and nothing less than a lobster museum on Kvitsøy. In Sauda the museum assumed responsibility for the buildings at Jone farm in Hustveit, and for Li farm in Suldal.

It is obvious that as time passed, the museum had become a complex organization even though only a sample of its many activities has been listed above. It also became an organization that spread out over a relatively large area. The feeling of having too little time, too few colleagues and too little money has always been present. It has never been possible to fulfill all expectations or to begin working on all duties. It has been necessary to prioritize. This has often resulted in choosing projects that awaken strong local interest and have available funds. The development of Ryfylke Museum has had to balance between satisfying local, regional and national concerns. Here the determining signals have often been strongest concerning national projects, since it is the State that contributes most funding to the museum management. We have tried to show that this can lead to neglect of priorities based on local and regional characteristics. If the museum is to reflect national diversity, it must also be allowed to choose a profile for its engagement that is built on knowledge of the district the museum is to serve.

The development of the museum has also balanced between the building of the institution, its collections and presenting information. It has been necessary to spend time and effort in increasing staff, obtaining buildings, material and equipment, developing competence and establishing a good working environment. In the balancing act between collecting, preservation and research on the one side, and external activities on the other, the internal sector has not always been the most regarded. A museum's success is often judged according to the number of tickets sold, while we find necessary precondition for occupying a serious role in society is the maintenance of a high standard of collection management, not the least concerning the preservation of buildings. We can still rejoice over the fact that the number of guests has developed well, thanks to an extensive program of varying exhibitions, guided tours, different events, activity days, lectures, cafés, song evenings, meetings and children's Christmas parties.

3 During restoration work on Viga farm we were able to use three permanent employees and two project craftsmen in addition to two more who were hired to help with technical solutions. Planning and management were done by the head of the Buildings Department (not present in the photo).

Documenting and supervising historic buildings at museums

A tool for professionalizing museums has been the establishment of national networks of museums having common interests. Our museum has been involved in starting a network for traditional crafts and building preservation at museums. At one of the first meetings of this network we had the issue of documentation of buildings placed on the agenda.

The discussions held in the network and the knowledge we had about the museums, gave reason to believe that work on the documentation of buildings themselves and of our handling of the buildings was not good enough.

A survey among network members showed that several museums had some kind of system for documentation, but that the majority of those who responded felt that these systems functioned poorly. The survey also showed that the systems were incomplete and that they were not adequately adapted to electronic and digital media.

One of the main problems seemed to be that the available external documentation systems were poorly adapted to the needs of museums and were thus seldom used in daily museum work. There was thus an obvious need to work on developing tools for more satisfactory building documentation. The purpose of a documentation system was as follows:

- Creating source data based on observations, surveys, interviews, writings, photos and drawings
- Collecting existing source data such as literature, archive sources and old photos
- Organizing the source data by means of systematization and archiving
- Making data available by means of a comparison of data in presentations, reports and research-based work
- Instruction and learning

The goal of the documentation work is furthermore to create research data and to create a basis for knowledge-based learning, to establish data as security documentation in case of a building being damaged or lost and, finally, to establish data as a basis for further maintenance.

Good documentary work will lead to increasing the buildings' importance and significance and to enhancing the scientific basis for their protection. It will raise awareness about the value of the buildings as being unique historical objects and increase general respect for authenticity.

In its Norwegian context work with the documentation of buildings will undergo different phases:

- The first phase concerns external documentation. This means documentation of the house at its place of origin. We need to understand this from a situation in Norwegian outdoor museums, where most houses have been moved from their place of origin. The purpose of such documentation may be to build knowledge, acquire complementary knowledge or more knowledge about the buildings. The documentation includes environmental documentation, landscape, etc.
- The second phase concerns the documentation that takes place at the museum. These are records of the internal handling of the buildings at the museum and include survey reports, reports on the conservation work and maintenance reports. Such records can allow for a check on the maintenance of the buildings at a later time.
- The third phase is what may be called supplementary documentation. This concerns providing information on buildings that are incompletely documented or absolutely un-documented.
- In addition to these phases documentation on the different level of ambitions is required. Aims of the documentation can be described as follows:

The basic level is descriptive in which we document materials, form and construction. Contextual data are also included in this basic description concerning age, geographical location, information related to social conditions or persons, and data about the use of the house. Inclusion of characteristics of types of cultural references and comparisons may also be required to be part of the basic documentation.

The next level would involve a more analytical description. Included here would be data that appear in the course of specific analysis and studies, such as scientific research. Examples of this are analyses of growth rings and investigations of materials.

The most ambitious approach would involve a comparison of all available information in order to exploit the effect of different source combinations and of a total effect.

There is reason to emphasize the need for pre-understanding and for a satisfactory horizon of understanding.

With *pre-understanding* we mean the knowledge already present in the person who carries out the documentation. It is important to have knowledge of sufficient width and depth so that one can recognize, observe important details, track marks, find meaning in what one sees and interpret the details into a whole. This visual ability is thus very important in the work of building documentation.

With *horizon of understanding* we mean the perspective and the experience in relation to which one considers the information in order to make the information meaningful.

In summary, this means that documentation is a both important and comprehensive work. The work requires good knowledge and appropriate tools. A vital goal for the work on the documentation of the buildings in Norwegian museums is that this will provide support to upgrading the level of documentation work regardless of one's original footing. Where little has been done before, it is important to start off with basic documentation. Where some

documentation work has already done, one can go further and formulate higher goals for the work.

It is important, however, that all material collected by means of systematic documentation provide the basis for qualified analysis of the buildings. The more knowledge we have about a building, the better starting point we will have for an analysis of origin, recent changes, functions and usage.

Creating sources and assembling knowledge in building protection

"Byggeskikk", the Norwegian word for "building traditions", is an easy word to write. The pioneer sociologist Eilert Sundt (1817-1875) was one of the first to do so. On his travels around Norway, he noticed that while houses in one district could resemble each other, they could differ greatly from other districts. He visited Ryfylke about 1860, and detailed how the three-room farmhouse had been formed by combining an older house and a guestroom. It seems as if buildings' shapes interested Sundt more than who had built them.

Since then we have understood the importance of studying the actions that have created the buildings in order to understand why they have developed as they did. Building traditions deal as much or perhaps even more with the action-borne knowledge that creates buildings and that is personified in the body of the one doing the work. This is knowledge that is transmitted through interaction between the older and experienced craftsman and the younger one who is eager to learn. Knowledge about materials, tools, working methods and shaping of buildings in detail as well as in the larger context, was something that was developed and transmitted from the experienced craftsman to the novice as a tradition. The result was, however, not unaffected by changing styles, availability of materials and personal abilities and interests.

After a time traditional craftsmanship became unmodern. House-building became more standardized and industrialized. New materials were taken into use while tools and working methods became more rational and efficient. The history of prefabricated houses can be set as far back as the late 1800s, but it was only when the postwar housing shortage and the need for rapid and cheap housing arose that the production of prefabricated houses really started. Their golden age was from the 1960s and on.

There were those who soon realized that vital knowledge could be lost. In 1985, the county planning authority invited us to participate in working out a county plan for heritage sites. In the recommendations submitted by the steering group in 1987, we pointed out that protection of cultural heritage also should include protection of old crafts. We recommended that the county municipality ought to establish workshops in cooperation with the State and

the municipalities, to provide the necessary professional assistance. Quite specifically, the group proposed that two antiquarian workshops be started as a short-range measure, one at Ryfylke Museum in Sand, to help both Ryfylke and North Rogaland, and one at Godalen Upper Secondary School in Stavanger to help South Rogaland. Nothing happened in the short range, however, but seen in retrospect this was an important basis for the establishment of a building protection project at Ryfylke Museum in 1994.

4 Learning by doing. An important part of this method of work is having younger craftsmen working alongside experienced artisans.

On a national level the Registry of Crafts was established at Maihaugen in Lillehammer in 1987. This was to be part of the work of protecting traditional crafts and knowledge that was about to disappear. An important part of the work was to be a nation-wide register of craftsmen. The grounds for doing this was that the competence held by one person could be spread out to a larger district. The Registry of Crafts later changed its name to the Norwegian Handicraft Development with the additional title Center for Intangible Cultural Heritage. The Center has been assigned responsibility for implementing UNESCO's Convention of 17 October 2003 concerning Protection of Intangible Cultural Heritage with emphasis on craftsmanship.

The convention was ratified by Norway on 1 January 2007. Traditional craftsmanship is defined as being a vital part of intangible heritage. The convention's radical perspective is that traditional craftsmen and the transmission process in itself are given priority ahead of the forms and products resulting from the work. This means that good conditions for the process of transmission must be assured. Action is more important than product, craftsmanship more important than the building.

Jon Bojer Godal has been an important contributor to the understanding of the visual part of craftsmanship. In an article in *Folk i Ryfylke* 2006, Ryfylke Museum's Annual 2006, he wrote:

> *Craftsmanship is primarily expressed in the craft. This can be divided as process and product. The product is permanent, but the process is transitory and no longer visible when the product is finished. The product depends on this transitory substance of*

action, pattern of action, skill, perception, comprehension and understanding for what is done. The process also includes tools, equipment, workplace and raw material that only indirectly and partially are visible in the finished object. No matter how many words and how much can be said and written, craftsmanship in its primary form of expression is process and product.

It has still been necessary to find the correct terms for what is done. The expression "action-borne knowledge" was arrived at as a result of attempts to find better terms than "experienced knowledge" or "silent knowledge" then used in professional literature. The correct term arose at a meeting at Maihaugen in 1993 and while Jon Bojer Godal brought the child to be christened, it was Magne Velure who blessed it. Godal himself calls this a "knowledge-philosophical concept" that expresses something about the connections that allow us to do something. He distinguishes between aptitude and awareness. Action-borne knowledge is, first and foremost, an aptitude.

In order to acquire action-borne knowledge one must mimic the one who can, just as children mimic adults. Or as we do when we try to reconstruct transmission of traditions: Combine tradition-bearers and craftspeople in a working situation, and have a third person document what takes place. In this way a situation arises in which knowledge is transferred through interaction while the process is being documented. A working situation like this also creates a good basis for the transference of oral tradition linked to traditional building. This concerns professional terminology and designations, as well as narratives that can function as "pegs" in the acquisition of knowledge.

In Rogaland the need for protecting and transmitting traditional knowledge was quickly realized as being vital to credible building protection. But even if the idea was sown, raising necessary funds to realize it was not easy. At Ryfylke Museum we managed to establish a project in 1994 that we called Project Building Protection in Ryfylke. The project was well-supported by the County Governor, the district funding office for Rogaland, Suldal business development and Rogaland County Municipality. It was a project with extensive and ambitious goals, but its beginning was humble. At this time the museum had only one permanently employed craftsman. The project allowed for engaging one employee in a 50% position and part-time hiring of craftsmen as instructors. The project began at the beginning of 1995 and lasted until 2001. During this period ten far-reaching documentation projects were completed according to the model proposed by Jon Bojer Gordal at the Norwegian Crafts Development.

Action-borne knowledge can only be preserved by keeping it alive. It is still important, however, to document what we do when we work on the restoration and care of old buildings. That is the only way we can be sure that real knowledge about what is done can be saved and about why things were done as they were done when there the need next arises for doing maintenance work on a building.

Documentation includes the condition before work is started, the work processes underway and the finished result. But it also includes searching in other sources for information about the building, such as can be found in archives, literature, old photographs

and among people who can contribute their recollections. We use photos and films, surveys, drawings, notes and interviews. These are important source materials for information on building heritage and traditional craftsmanship, and in that way a basis for the spread of knowledge that is the duty of every museum.

3 In our work of gathering local information about old crafts, we are completely dependent on having the cooperation of those with these skills, and to learning from them by working together. Bjarne Østebø was one of our fine tradition-bearers.

In 2005, Ryfylke Museum was granted funds on behalf of the Building Network (the network of museums doing much of the work on building protection) from ABM Development (now the Arts Council Norway) for a project called "Creating sources and assembling knowledge in building protection". The project led among other things to a Handbook for Documentation of Buildings that gives guidance on how one should proceed in the work of documenting building protection.

At Ryfylke Museum we now began to feel we were rather good at this. We also got more employees. We had eventually created a building department with increased capacity and high competence. We were given a commission to carry out a pilot project on building preservation at the museums of Rogaland for the Ministry of Culture. We were now among the foremost in this country concerning building protection and our self-confidence was so great that we invited the annual conference in ICOM's Committee for Historic Buildings to Ryfylke in 2009. ICOM, the International Council of Museums, is the world organization for museums. The Committee for Historic Buildings, DEMHIST, is an under-committee.

Among the things we showed these foreigners was the result of our work in restoring the cottar's farm at Røynevarden. We thought that this little site high above Suldal Lake would be suitably exotic and besides, we could show exemplary illustrations of good restoration work.

We know much more now than when we started the project Building Protection in Ryfylke in 1995, but we will never be over-qualified. In the olden days youngsters followed their fathers or masters for years. We have difficulties in finding master craftsmen. In many cases the tradition has become weak or is about to disappear. During the years we have worked with this, many of those we have had as tradition-bearers have passed away. And that always means shorter periods of learning or transmission of traditions. But over time we have

built up our experience, and we have built up an environment whose members can support each other in the development of the craft. We know of no better method and hope that our own work, in collaboration with others in the networks that have been established, helps action-borne knowledge, which is that part of the intangible cultural heritage made up of traditional crafts, continue to be a sound foundation for the work of preservation and maintenance of historic buildings.

Organizing building management

It must always be the responsibility of the head of each institution to ensure that the museum has the necessary systems, skills and aids for running ~~a~~ systematic documentation work. But in practical work, it is important that craftsmen and curators arrive at a good cooperative understanding of responsibility and tasks.

The craftsman is the one who comes in close contact with the building materials, construction and tracks of those who have gone and worked before. But the craftsman has traditionally had a subordinate role at the museum.

At Ryfylke Museum we believe that craftsmen should have a central role both in working with basic documentation and survey reports and, not least, in working with maintenance documentation. This requires allowing craftsmen sufficient time for necessary training and documentation of the work, including the introduction of a scientific mindset that includes pre-understanding and self-reflection.

Curators and conservators are those who traditionally have led work on building protection and who have been responsible for documentation. But they have not always possessed the necessary fundamental knowledge for documentation and analysis of materials, structures and tools tracks. It would be useful if close collaboration between craftsmen and academic staff could be realized and thus allow for an overlap that ensures the best possible documentation of the object itself, of the state of its condition and of the sources for building history.

Based on the conditions of the single museums, we believe that the director should delegate primary responsibility to one specific person for doing documentation, for working out plans and goals and for maintaining control of the documentation work.

We have also said something about the terminology to be used in working with building protection. We believe it is important that standardized terms, i.e. the words that appear in official dictionaries, be used. These designations should be used in working with data recording. These vary from place to place, even within relatively short distances, and are important elements in the knowledge we should be caring for. We therefore strongly recommend that museums carrying out documentation work ask about local terms and take these into use in their work.

Efforts to build up a systematic tool for documentation of buildings have led to a handbook that is now being adopted by a number of museums in Norway. We also have a joint system for electronic registration where basic information may find its place.

By using this system, we hope that the next generation of museum workers will discover more answers to questions about buildings at museums than our generation did when we started.

Documentation systems

During the last 10 years Norwegian museums have undergone immense structural reforms. In the late 90´s, there were about 400 independent museums in Norway; the exact number is unknown. After a reform strategy initiated by the Ministry of Culture was implemented, only about70 museums that remained and that received governmental support. One consequence was that many small museums were united into larger museums, most often on a geographic basis.

One of the aims of this reform strategy was to build a viable economic fundament for the museums. The other main aim was to strengthen their professional capacity. A tool for achieving this was to organize the museums into professional networks.

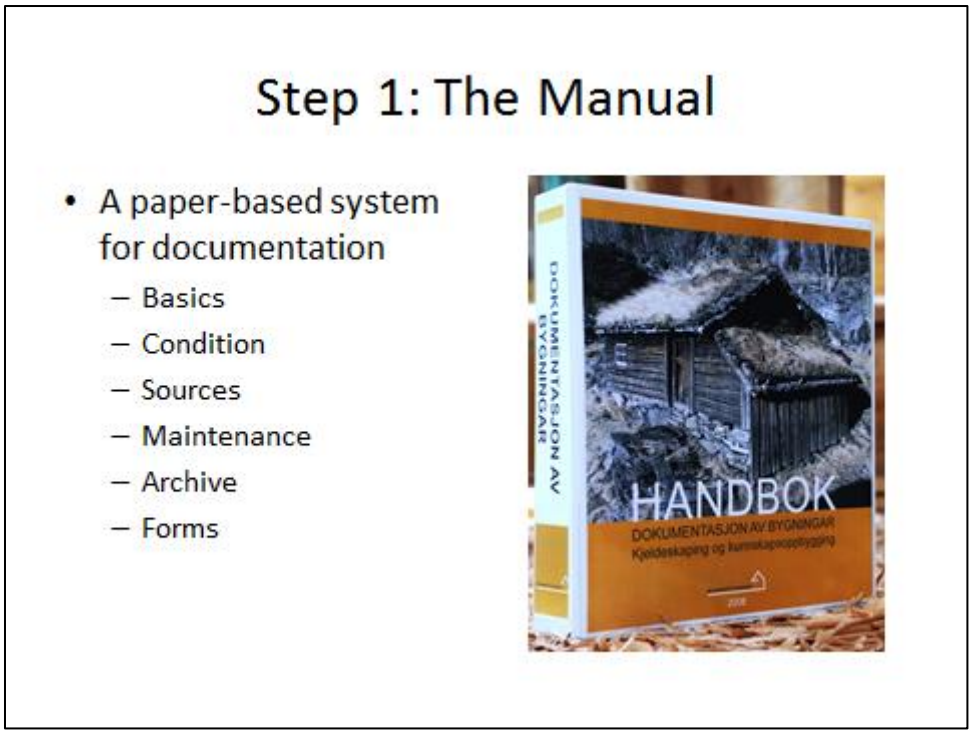
At present there are 25 active networks, one of which is the network for building preservation. It was established 2004. Ryfylke Museum has led this network from its very beginning.

The most important activity within the networks are the meetings, or seminars, at which people from different museums come together to exchange knowledge and information. The meetings are held at the different member museums.

The most important topic we have directed our attention towards is the need for better documentation of the museums' buildings and of what we are doing with the buildings at those museums.

The manual

This leads us back to the first step in our history of documentation – the hand book, or the manual that we worked out for the network in 2008. It is a paper-based first attempt at offering a systematic method for documentation.



The elementary level in documentation work concerns establishing what is called basic documentation and registration of condition. This means the determining of the most important information about materials, form and construction and, in addition, about age, location, social and personal relationships and usage.

The next level has to do with obtaining context data about usage, age, location and also social and personal historic relationships. Here we search through other available sources in order to understand the building and to describe the work using scaled survey plans, photographic documentation and the sources for building history in archives and in oral tradition. At this level it can be useful to conduct special surveys such as tree-ring dating (dendrochronology).

The sum total of basic documentation, context data and potential special surveys can establish a basis for conclusions about origin, building history and usage that in their turn can allow for an evaluation of existing documentation and for qualified assessments of the state of condition, maintenance status, risk evaluations and precedence of remedial measures.

This interaction between practical understanding, an aptitude for visual observation and scientific systematics means that we will acquire better knowledge about buildings and thus a qualified basis for presentation.

Experience shows that most museums have such information about their buildings. This is not the case, however, with the documentation of the buildings' condition after they are moved to the museum site or have become museum property. Documentation in connection with maintenance, moving, alteration or demolishing is inadequate at many museums. In view of the goal of caring for buildings in museums, documentation of the work

being done on such buildings must be considered to be just as important as the actual work itself carried out on them.

The handbook also explains about methods for work in reconstruction, documentation and transmission of the knowledge about work processes, or action-borne knowledge.

The handbook's last section contains a recommended key for archives in building history, a bibliography and an HSE plan (Health, Safety and Env

Basic documentation and registration of condition

Basic documentation collects information not only on identity, localization and ownership circumstances, but also on physical conditions such as size and function, and on possible administrative registrations, established protection status, special history etc. This type of information is found in local archives, in photographs, in public registration records, on the Internet, in telephone catalogs or can be accessed through interviews with informants.

By registering physical condition we will obtain complete information on the present condition of the building. In order to make such registration more readily understandable, we recommend systematizing the work in the following way:

1. We divide the building into separate elements (ground plan, foundation, construction, walls, windows, doors, roof etc.) and carry out the work by stages. The numbers of stages depends on the size of the building. We have reckoned on a 32 stages as being the maximum for doing this work.

2. The following information shows a the minimum of what should be noted at each stage:

    a. *Dimensions* of length, breadth and height
    b. Description of visible *construction*
    c. Description of *materials*
    d. Description of *surface treatment* (color, wallpaper, marks of tool use etc.)
    e. Visible *damage*, or marks of wear

This means that the same steps will be repeated at each stage, except in cases of work with more complicated constructions such as outdoor facilities, terrain or gardens, and will be of great use in systematizing the work on both simple and more complicated constructions.

Every questionnaire form in the handbook is set up to suit the separate stages of the work, but their basic composition is always the same. Each form consists of three sections:

1. The main section

Mål □ Konstruksjon □ Material □ Overflate □ Skade □ ellers □			
Objekt:		GAB nr.:	
		Grd.nr.:	Bygg.nr.:
Side:	Rom:	Kommune:	
Bygningselement:			

Texts in this section:

- Measurements Construction Material Surface Damage Other
- Object Title no. Property no. Building no.
- Side of building Room Municipality
- Construction element

This main section allows for a specification of the type of survey that is being done and for whether focus is being placed on damage, measurements or construction etc. The headings have only a support function so that sketches can more easily be entered into an advanced system. Information that has been gathered about several relevant groupings can also be noted at the top.

Identification of the surveyed object is an important feature of the registration survey: address, title and property number, registration number, municipality and possible construction element. All such information must be placed here.

2. The mid-section

The mid-section has been thought of as being an adaptable work sheet for sketches, drawings, notes, keywords, memos or for detailed information. Anything that can help in the understanding of the building, the construction element or of other relevant matters can be noted here. Whether the mid-section is used as scratch paper or for more advanced drawings has little real significance. It can be adjusted to the goal of the survey. What is most important is the gathering in of as much information on the object as possible.

3. The bottom section

Oppdrag:	Målestokk:	Dato:
Foto- og/eller andre referanse:	Navn:	
	Reg.Nr.	

Texts in this section:

- Project: Scale: Date:
- Photograph and/or other references: Name: Registration no.:

The third text section resembles the bottom section on scale drawings, even if the scale in this instance does not have the same importance. The registrar can choose whether or not to use such a scale. This section is meant to be used not only by the institution or the person who does the documentation but also to provide references to photographs, drawings or other documents that can aid in understanding the building, and to the date when the form was filled out as well.

The form can be used according to need. If necessary, several forms can be filled out for each stage in the work process. The structure of the form is replicated. This makes it easy to use the worksheet for information that might not correspond to the title on the form should that prove necessary. It is then simply a matter of crossing out whatever is irrelevant.

This opening for individual solutions is the basis for each separate stage. In this way we can create a safeguard allowing us to deal with both complicated challenges and surprises, and to gain extra space for supplementary information.

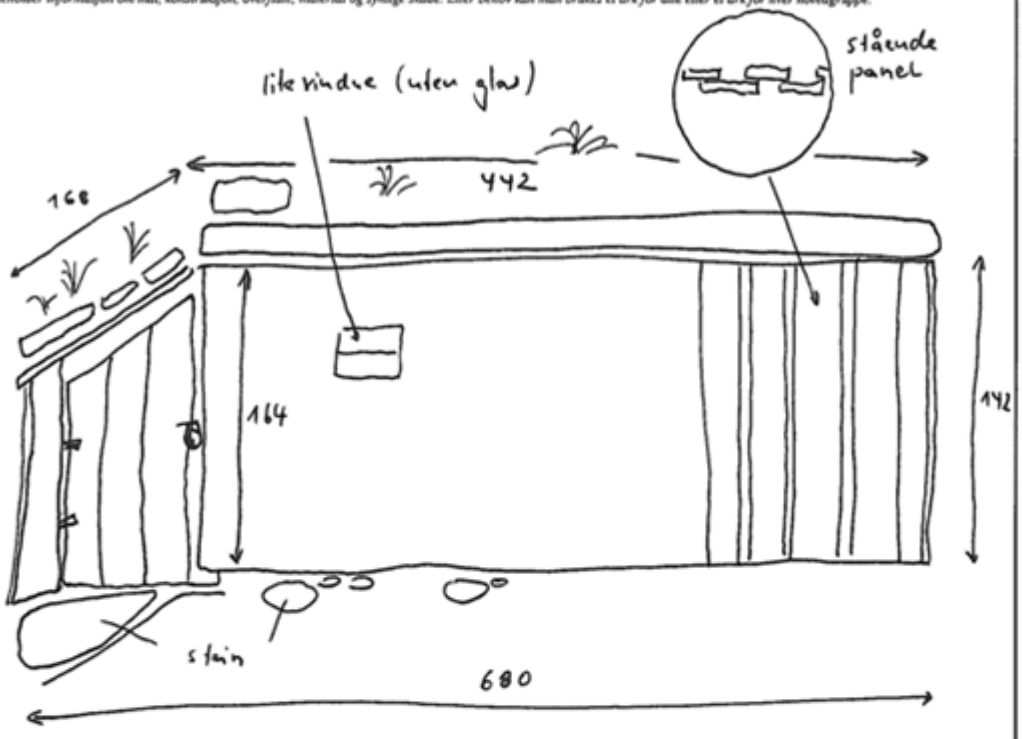
Cameras are important pieces of equipment that should be used during the entire process in addition to pencils, measuring-tapes and worksheets, either to illustrate the method of work or to give a basis for follow-up control. This applies to every stage of the work except for the first one.

All worksheets are then collected and placed in a loose-leaf binder in the same order as the work was done. When the final work stage has been completed, we will have a complete survey of the building's measurements, construction, damage, surfaces and material as a basis for future decisions and evaluations.

Mål ☒	Konstruksjon ☒	Material ☒	Overflate ☐	Skade ☒	ellers ☐

Objekt: Röykslova / Röynevarden		GAB nr.: 17 23 58 8 53	
		Grd.nr.: 6/13	Byg.nr.: RFH 612.11
Side: Nord	Rom:	Kommune: Suldal	
Bygningselement: Fasade utevegg			

Skal inneholder informasjon om mål, konstruksjon, overflate, material og synlige skade. Etter behov kan man brukes et ark for alle eller et ark for hver hovedgruppe.



Vaanskift fasade mot nord. stående panel. Farge mörkere enn de tre andre veggene.
Antydning av 3 byggetapper: Slova / kammer / Skut
Skuten ligger litt lavere og har selvstendig konstruksjon
Skute dören glatt, ikke panel.
Nesten alle panel værpreget. Mosete nederst.
Lite vindue uten glas, kammers.
Tre.

Oppdrag: Ryfylkemuseet	Målestokk:	Dato: 21.8.07
Foto- og/eller andre referanse: RFF 20071031 : 017/018/019	Navn: Bernd Elmies	
	Reg.Nr.	

6 An example of a fully filled-out form for registering a facade.

7 Registration work in practice. Sven Hoftun, Ryfylke Museum's master craftsman, demonstrates the process for the delegation from Ciechanowiec.

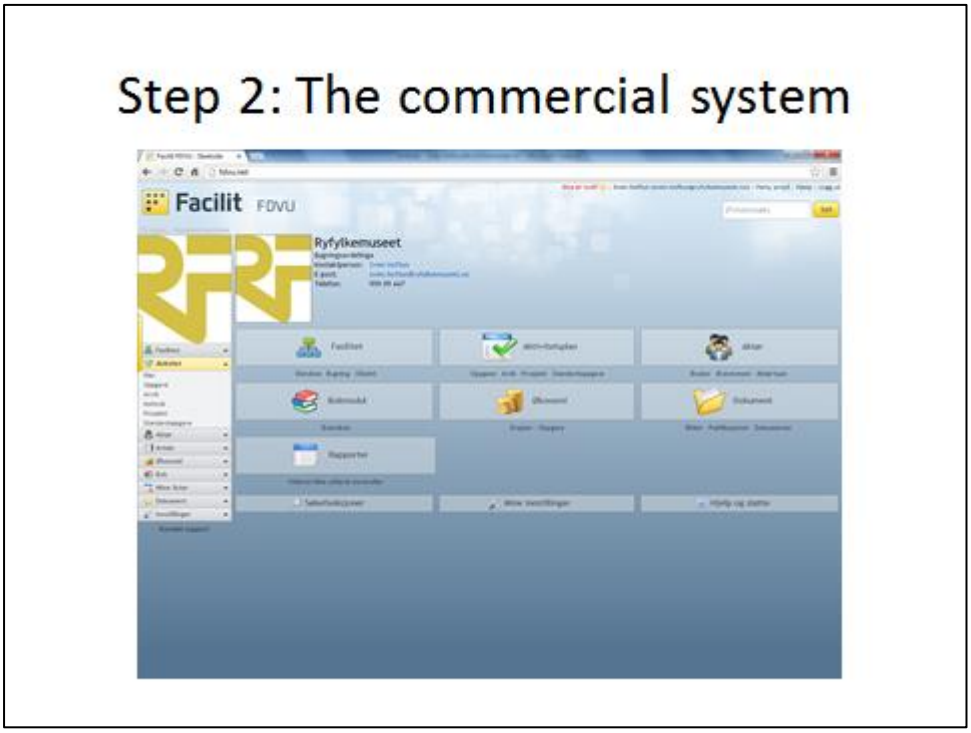
Other sources for information about buildings

The handbook gives a detailed description of working methods used in surveying buildings, photo registration, building archaeology (determining usage marks, tool marks, surface treatment etc.) and of the various sources for information on buildings in literature, photographic collections, and in work with oral sources (informants).

A separate chapter deals with documentation of buildings in connection with maintenance work, moving, alternations or destruction of buildings. This includes planning, budgeting, calculating consumption of materials, documentation of the work process and reporting.

The handbook is concluded with a chapter on re-building, documentation and transmission of action-borne knowledge.

The commercial system



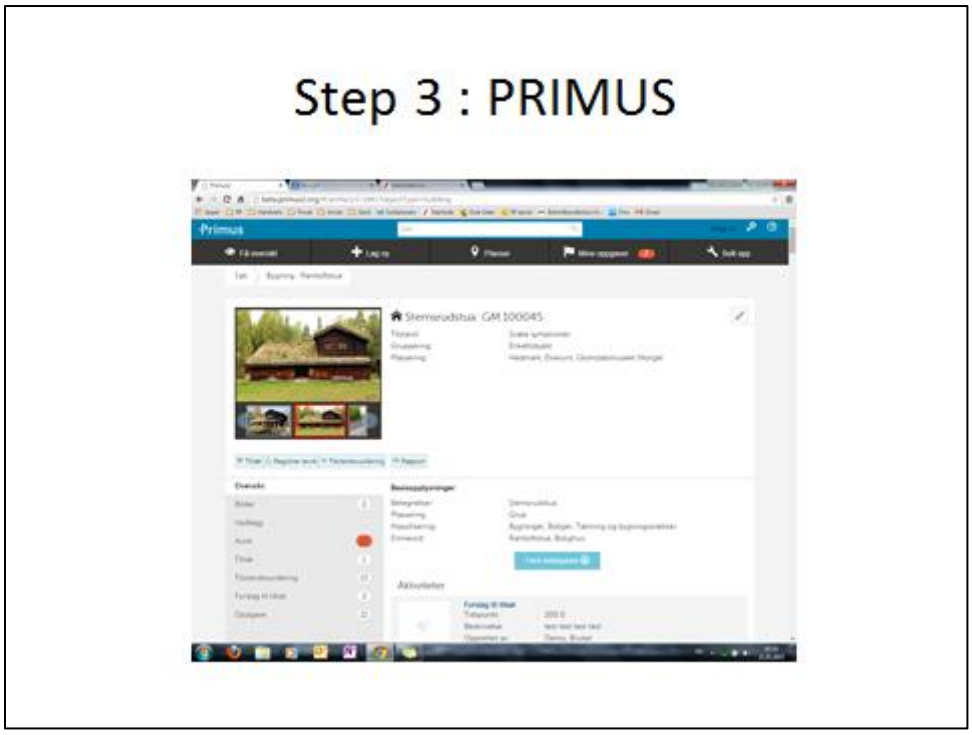
While we were waiting for a tailor-made computer-based system for use in museums, we bought a commercial system to handle our needs for ~~a system~~ for managing, operating and maintaining museum~~s~~ buildings.

Different systems are available, and although many of these are good, their costs vary. We chose a system called “Facilit”.

PRIMUS

The dominant documentation system for Norwegian museums is called “PRIMUS”. It is a system for registering and cataloguing different types of museum collections, including buildings. It does, however, have a weakness in being a static system, while we need a dynamic system in building management.

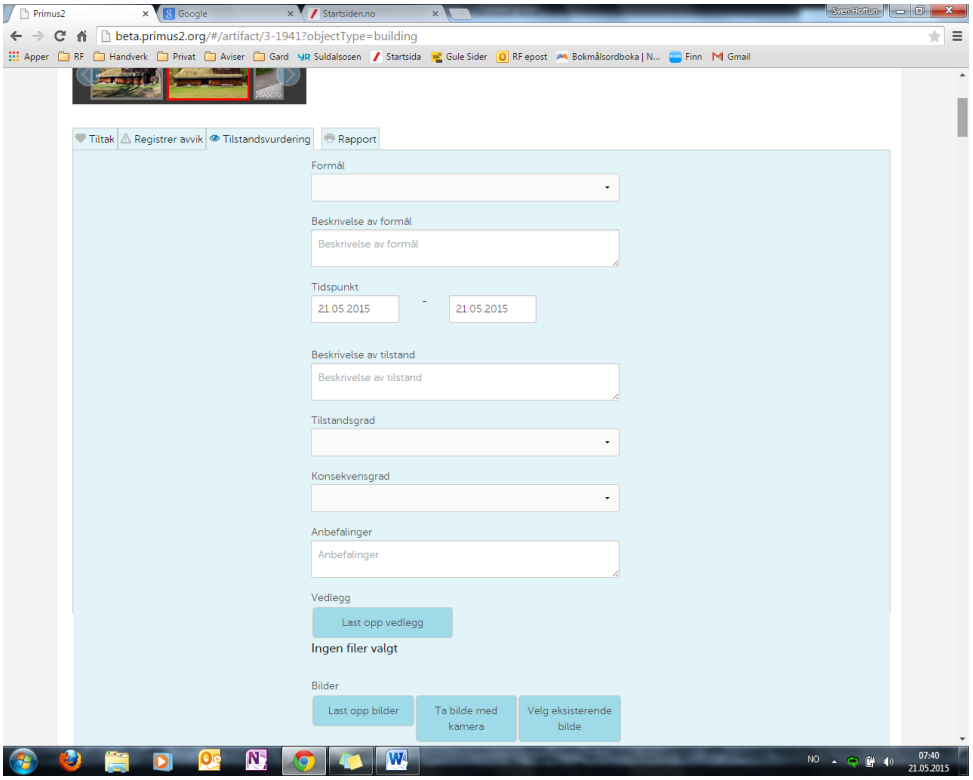
Based upon our manual (the Handbook) and other sources, we have participated in the development of a new module in “PRIMUS” suited to building management. The project has been carried out by a computer company owned by Norwegian Museums, “Kultur IT”, with a demo version having been released in the spring of 2015. This is going to become our main program for handling our building collection. Its main advantage is that it will be easy to connect the various collections to one another, whether these are photos, objects, buildings etc.



PRIMUS is a system for documenting basic information about buildings, for evaluating condition, for surveying and registering defects, for reporting and for distribution of tasks.

The system allows not only for filling out pre-determined categories but also for free-text descriptions and marking of defects on photographs.

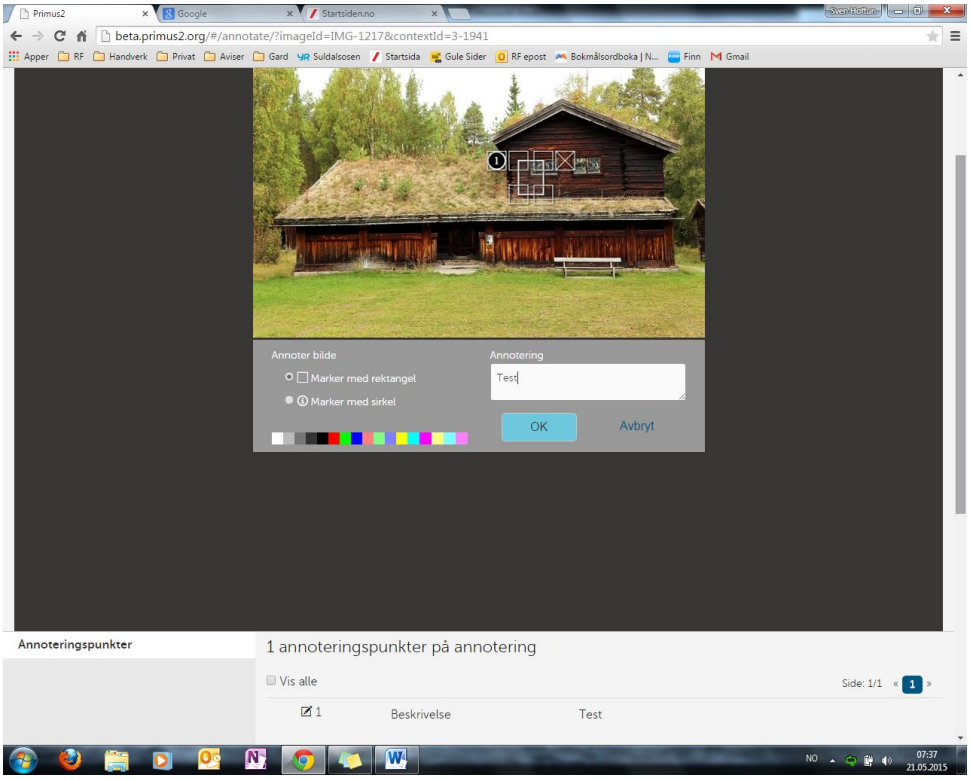
The display image for evaluating conditions looks like this:



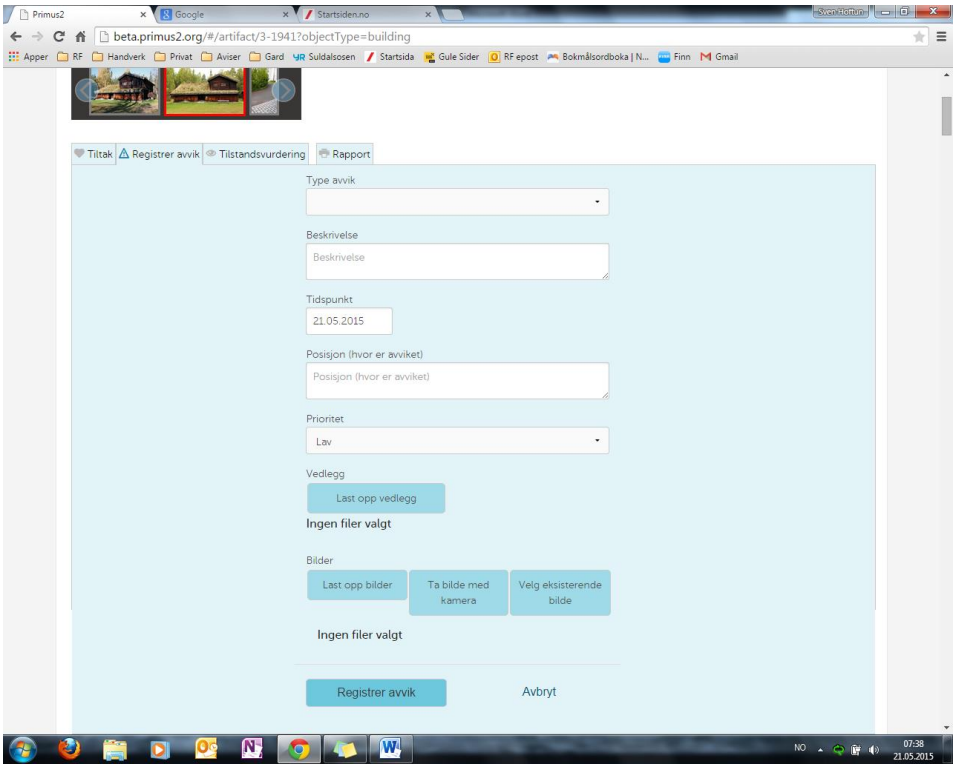
Categories to be filled out have the following content:

- Purpose (evaluation of condition according to reported defects or systematic inspection)
- Description of the object (free-text)
- Date and time
- Description of condition (free-text)
- Condition level
- Level of consequence
- Recommendation
- Annexes
- Photograph

Marks on the photograph can look like this:



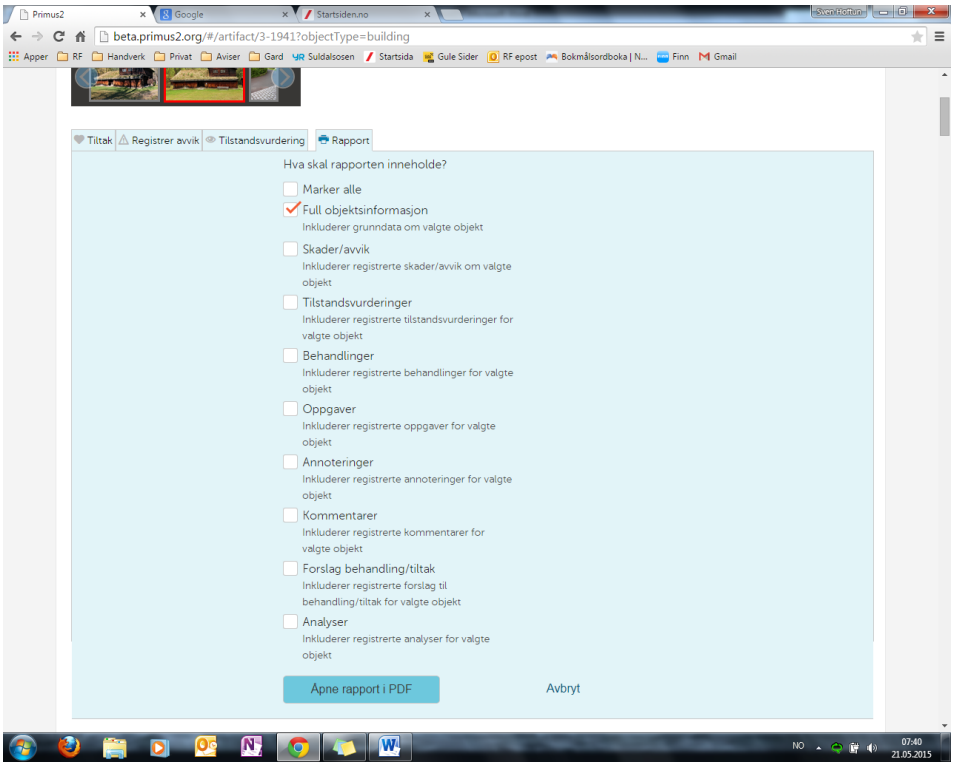
The textual part of a defect report looks like this:



The most important categories in this display image are the following:

- Type of defect
- Description (free text)
- Date and time
- Position (location)
- Priority level
- Annexes
- Photograph

Registrations made using Primus can be uses as the basis for a great number of reports:



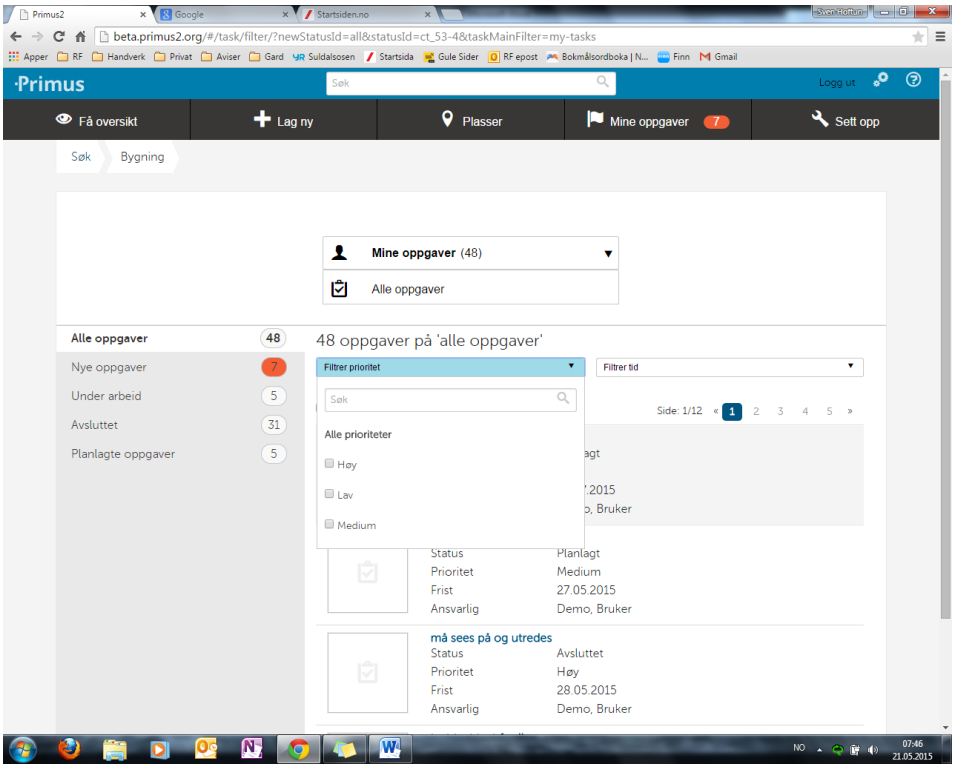
The most important categories are:

- Complete information about the object (including all basis data)
- Report on damage/defects
- Condition survey
- Treatment (finished tasks)
- Tasks (registered)
- Remarks
- Comments
- Recommendations
- Analyses

All these reports can be opened as PDF-files.

The system gives a good summary of all the existing tasks. These tasks can then be distributed among the staff and given priority at the same time. The display image for tasks (see below) allows for choosing among (see left-hand menu):

- All tasks
- New tasks
- Tasks in process
- Finished tasks
- Planned tasks



The individual staff worker can choose “Mine oppgaver” [“My tasks”] and filter these according to high, low or medium priority (see central dialogue box).

PRIMUS is installed for work on stationary PCs in the museum’s main office and on tablets or smartphones in the field.

The system will be an important and useful tool for surveying, controlling and reporting on the museum’s building collection. It will be a tool both for the centralized management of the building collection and a basis for better organization in planning, leading and completion of tasks. As soon as it is operative it will replace the commercial system FACILIT.

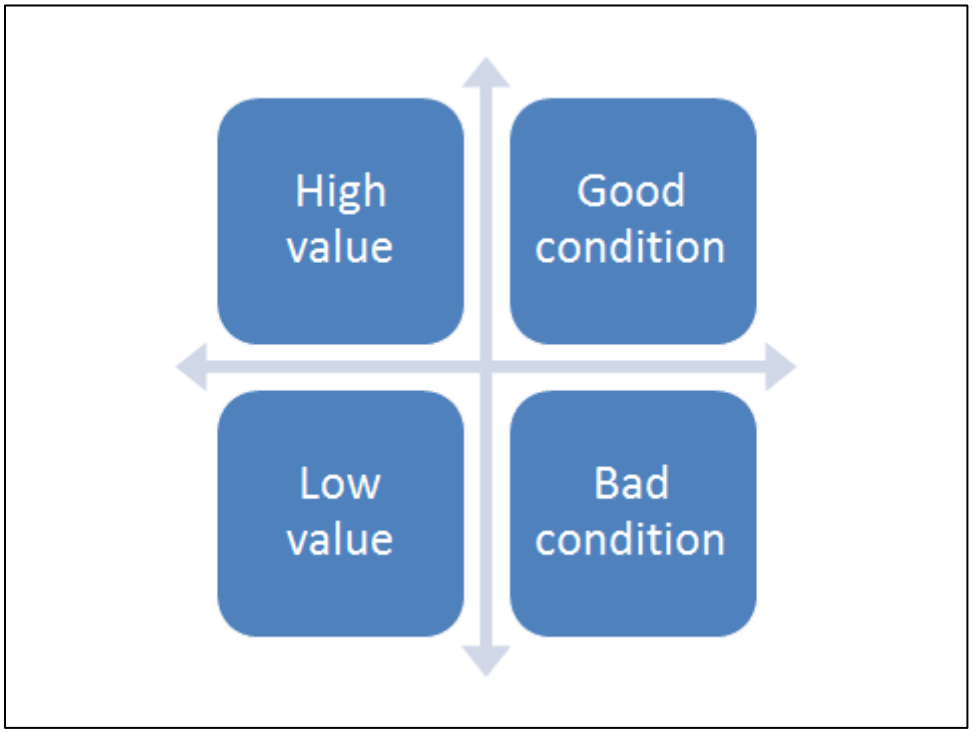
Priority of museum buildings

There are around 5000 historic buildings at Norwegian museums. That is a large number. It is obvious that all these buildings cannot receive the same attention. We have therefore worked at finding a system for assigning priority to the buildings in the collections.

Step 1 concerns identification of the building's technical condition and assessment of the cost of restoration. There is a separate standard procedure for analysis of protected and listed buildings. This standard is an adaptation of the European Standard EN 16096 "Condition survey and report of built cultural heritage".

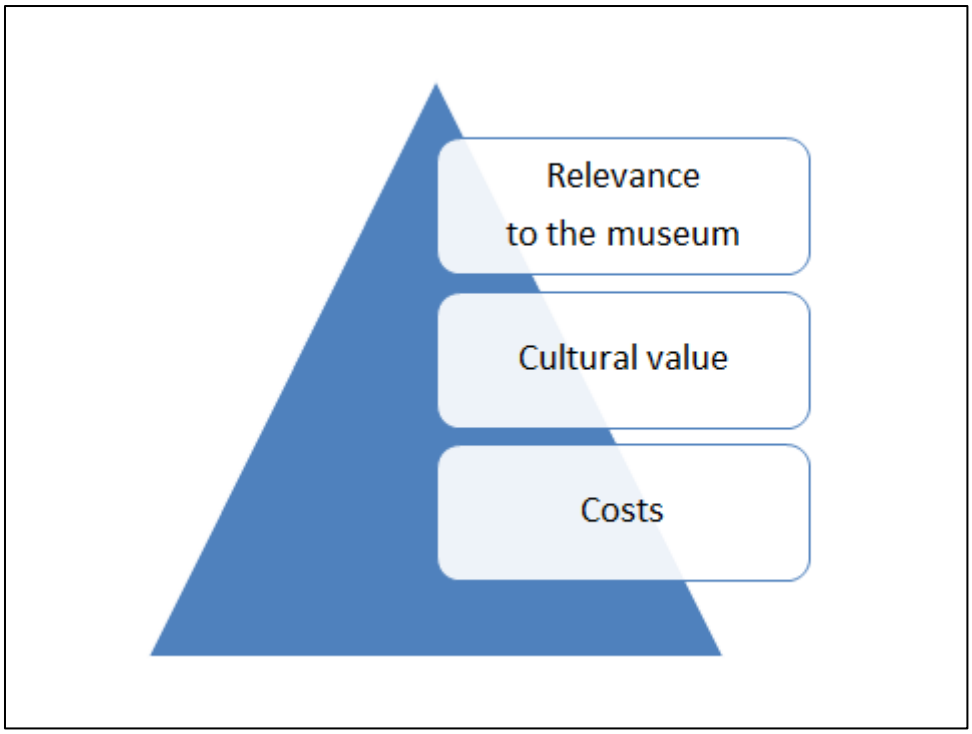
Step 2 concerns conducting an analysis of its authenticity, its cultural and historical value, including story-telling value, its architectural value, its value as a source of knowledge, its symbolic value and its value as a basis for adding experience to visitors.

Step 3 concerns assessment of its relevance for the museum. Does the building support the museum's goals and plans? Is it suitable for guided tours, education, exhibits and events of different kinds? How can it be used by the museum?



The higher the value of the building, the more relevance it has for the museum and the higher priority it receives, despite its physical condition.

On the other hand: it might be better to conduct preventive maintenance on buildings that are in relatively good condition, rather than to use available resources on extensive restoration of buildings which are in very poor condition.



Relevance to the museum, which is to say how well the building supports the museum's goals and plans, confers the highest significance.

Conclusion

In this day and age, and to an ever-increasing degree, knowledge of historic building methods, materials and tool usage will continue to fade away. If museums are to conduct reliable building protection, it is essential that they develop and use suitable methods for documenting and control of the buildings for which they are responsible. New technology allows for this being done in an efficient and understandable way that can be utilized by those who have need of this information. In Norway we now have a system of this kind in the data program PRIMUS developed in cooperation between selected museums and “KulturIT”, a principal provider of programs for museums.

Documentation work must not appear to be merely an extra task and something of a balancing item in the work of restoring and maintaining historic buildings. Much of this documentation must be done by those who work most closely on the practical work with buildings, by the craftsmen. One challenge for museum leaders, therefore, is to develop good cooperation between the practical and the academic professions at museums.

This is still not enough. As a consequence of museums’ own needs and in complying with the UNESCO Convention on Immaterial Culture, museums must include knowledge of working methods, of action-borne knowledge, in their activities to a much greater degree than has been done up to now. Museums are the only institutions that can assume responsibility for discovering, documenting and transmitting traditional knowledge in the building trade. At the

same time, this knowledge is absolutely vital to all understanding of historic buildings and to their maintenance, restoration or also to their possible reconstruction in a reliable way.

Historic buildings and knowledge about them are important elements for comprehending the life and work of those who lived in and used these buildings. The buildings themselves, however, the materials used to build them, the tools that were used and the work methods used to construct them are also a foundation for knowledge about building crafts. Museums must also accept responsibility for preserving and transmitting this part of history.