

Cultural Heritage Monuments and historic buildings as value generators in a postindustrial economy.

With emphasis on exploring the role of the sector as economic driver

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For a summary and important methodological notes refer to chapter 7, page 12.

We, the government of the state wish to put and end to the unhealthy practise which has created much disgust, because one permits buildings to be destroyed and thereby robs the town of its majestic appearance. Therefore we command that buildings constructed by the old shall not be desecrated. Those police officers who do not intervene when monuments are threatened by violence shall, after they have been whipped, have their hands cut off.
Roman emperor.

1. Economy – value – socio-economic theory

In a socio-economic value characterisation of the good Cultural Heritage objects are COMMON GOODS according to socio-economic theory. Commons goods are characterised¹ by being:

Non-exclusive : *A good is non-exclusive when a user cannot technically be stopped from enjoying / consuming that good.*

Non-rivalling: *The enjoyment / consumption of the good for one user is not reduced by more persons enjoying it simultaneously.*

The private (and profit driven) market cannot produce or supply sufficient non-exclusive common goods. The reason is simple: if you cannot force someone to pay to consume a specific good you cannot generate any profit! If profit may not be achieved for a 'good' the mechanisms of the private market ensures that such goods are not offered on the (same) market. So, if the mechanisms of the private market dominated alone, only those (immovable) cultural heritage (ch) objects with a high market value would be protected. The logic is similar for all common goods.

Now if this is the position of cultural heritage in a market, how do we find out what value that these goods have? From the perspective of value creation / definition there is no defined and unified methodology to specify the socio-economic value of cultural heritage objects. But standard economic calculations methods may be used to define the value of a cultural heritage object – or better an aggregated group of cultural heritage objects.

*"The value a consumer gets by consuming a market good is equal to the highest sum of money the consumer is willing to pay to secure that good for his own consumption."*²

Consequentially the value of a cultural heritage good is the highest sum of money a 'consumer' is willing to pay to ensure the possibility to enjoy (consume) the good. This is the use value of the good. But, as other common goods, cultural heritage is a '**non marketable good**' and also a **non-renewable good** the final estimation of value must also take into account what we can call a **non-use value**.

In conclusion, the value of such goods must be set by analysing to types of values: Use value and Non use value. In this article we will concentrate on trying to analyse the use value of cultural

¹ "Valuing Cultural Heritage", Ståle Narverud, Richard C. Ready, Edward Elgar, Cheltenham UK Nothampton USA. ISBN 1 84064 079 0

² Ibid.

heritage from a social economic perspective. The non-use value is a value which must be added to the use value to achieve a correct picture of the total value of cultural heritage to society. This is not done in this article.

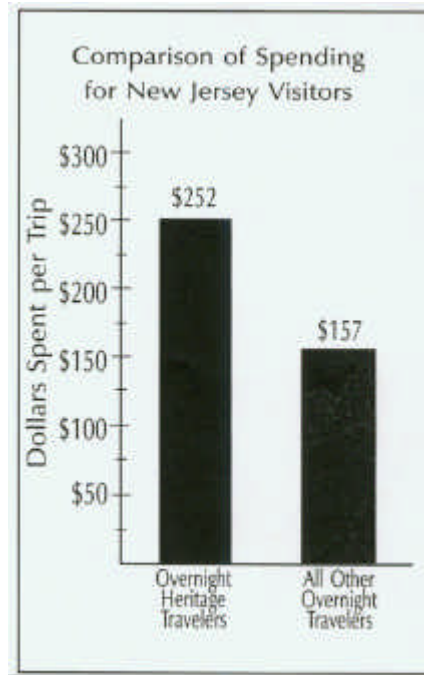
2. Turnover of sector

Cultural heritage has great value for other industries. Cultural landscapes, townscapes and individual buildings are used at input or a backdrop for many PC games, for the film and television industry and by businesses in their marketing and customer relation building activities when they organise spectacles and PR/reception activities for clients in old monuments. What this use value is is not calculated here, but needs to be mentioned.

The tourism sector is the ‘industry’ that to the greatest extent uses cultural heritage as support for its backbone activities like hotel accommodation, transport and catering. Cultural heritage is a major contributor to the income from tourism, which stands for 5,5% of the EU GDP, generates more than 30% of its revenues from trade in external services, and employs 6% of the EU workforce. Tourism has an expected growth rate is 57% in the period 1995-2010³

There are clear indications that the dedicated cultural heritage tourist spends more money when travelling than other tourists. Data from New Jersey (USA) shows that their daily spending is 60% higher than other tourists / travellers.

Figure 1. Spending of cultural heritage tourists and other tourists/travellers⁴



³ (EU High level Group, 1999).

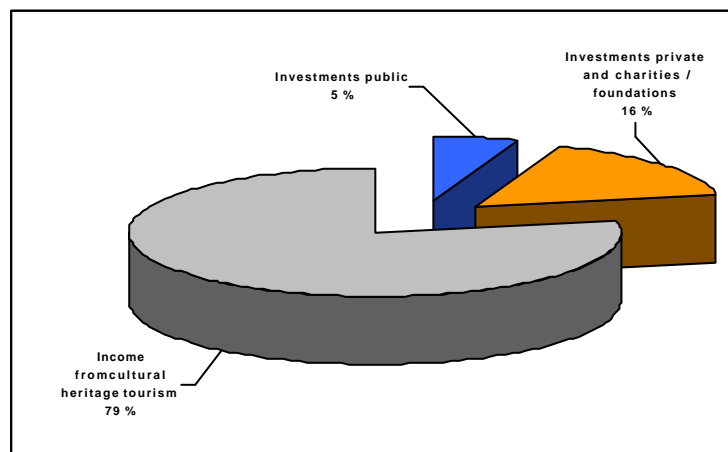
⁴ “The economic benefits of Historic Preservation in New Jersey”, New Jersey Historic Trust -1998

The value of the cultural heritage flows to other businesses than cultural heritage itself. Even in those cases where entrance fees are demanded to access a cultural heritage site the problem of defining the value based on earnings from tickets, souvenirs or other income bringing activities at the site remains. The reason for this is the difference between spending at the site (direct earnings) and the spending outside the site. As all the money a visitor to the site spends on getting there, eating and (possibly) staying overnight, is the “*sum of money the consumer is willing to pay to secure that good for his own consumption*” it is evident that this must be part of the economic value of the cultural heritage site. But we know⁵ that only 6 to 10% of the total spending is left at the site.

To arrive at some kind of figure for the turnover of the cultural heritage sector we used the following approach. We took the number of tourist arrivals to Europe in 2002, assumed they stay for 16 days, on an average, that they visit at least one museum or historic building during their stay. We also assessed their daily spending (overnight, food, drinks) at 150 Euro per day per person. We did not include the cost of their travel to their destination or any travels between different destinations during the stay. Local transport use as well as one entry to a museum⁶ etc. was calculated per stay⁷.

So this gave us an idea of the sums of money used, but how much of this sum could be assigned as value to cultural heritage? Here we were forced to make a definition of what consumption of cultural heritage is and subsequently how much of their time is spent consuming this good. We defined consumption of cultural heritage as visiting museums and site, of course, but also included the choice of a café to take a drink when the surroundings are historical, architecturally interesting or a beautiful cultural landscape. Sitting down to eat or drink, or just walking and ‘taking in’ the surroundings is cultural heritage consumption. Based on this we stated that 30% of the time is spent consuming cultural heritage. In sum we found that turnover (mostly) from tourism due to cultural heritage is Euro 338 billion, at European level⁸

Figure 2 Elements in the turnover of the CH sector



⁵ Studies done by English Heritage and Norwegian Directorate for Cultural Heritage

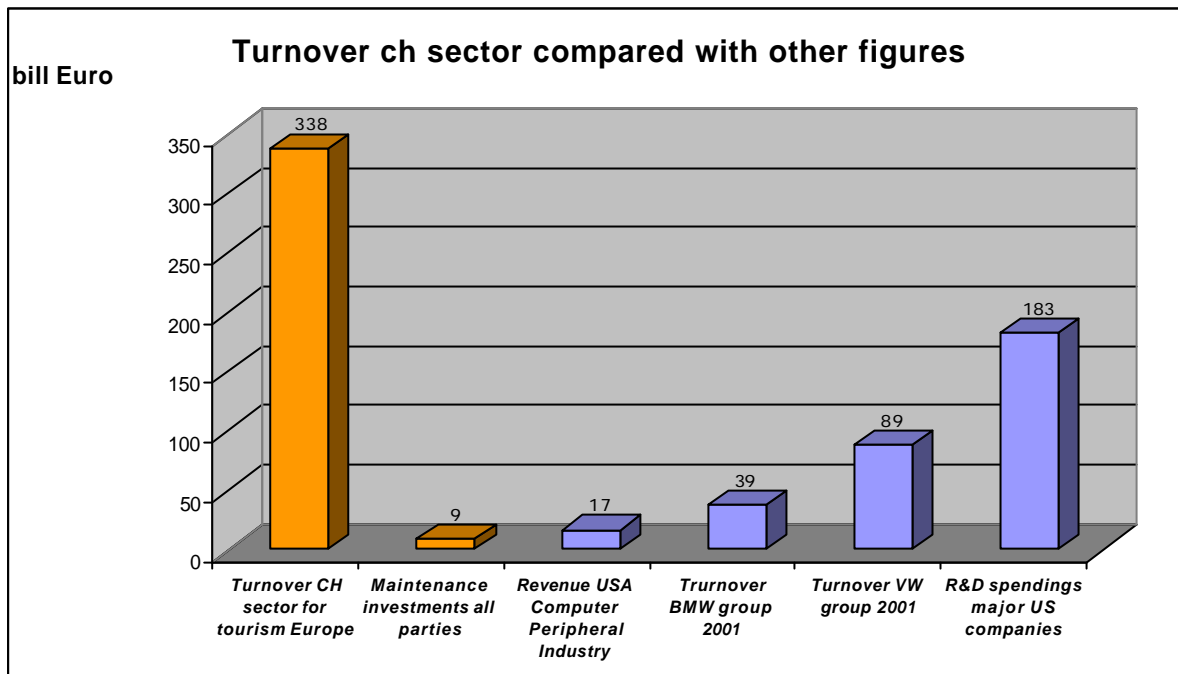
⁶ Local transport and sundries at Euro 20 per day, museum/gallery visit at Euro 20 per stay.

⁷ We also know from other studies that there is a great potential for more rational and less costly maintenance of ch, this sum is 1,9 billion Euro. This sum was added to the value. Norwegian Directorate for cultural Heritage, 2001.

⁸ By European level we here mean EU countries, EEA countries and the new member countries from June 2004.

79 % is turnover due to tourism, 16 % is investments in maintenance etc. from private owners, charities, foundations etc., and the remaining 5% is investment made by public and governmental bodies.

Figure 3 Turnover of cultural heritage sector compared to some other sectors



3. Employment in CH sector Europe

Based on a survey carried out in the spring 2003, we received information on the cultural heritage sector from Norway, Sweden, Finland, Denmark, The Netherlands, United Kingdom and France. We used this information to stipulate direct employment for those countries not participating in the survey. The number of directly employed is 306.000. By directly employed we mean those who work directly with cultural heritage in administrations, research institutes and businesses executing restoration or maintenance works on cultural heritage objects / sites. Probably the number of direct employed is even larger. Just in France⁹, 40.000 craftsmen work on repairs and maintenance of the cultural heritage. Indirect employment effect amounts to 7,8 million man-years. In all, more than 8 million jobs are sustained by the cultural heritage sector.

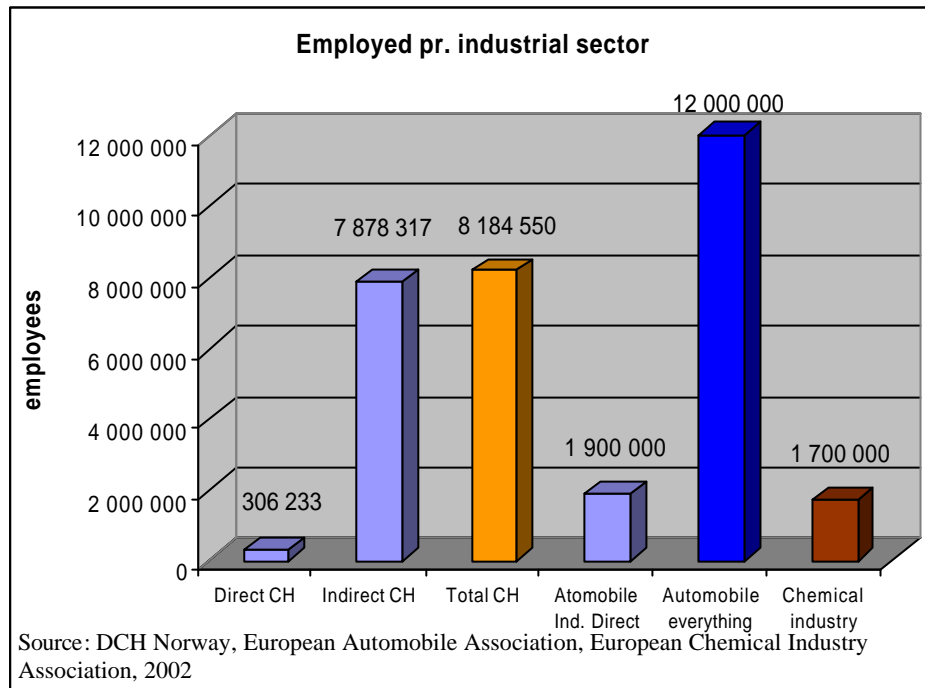
Another important element to consider in a post-industrial economy is the labour intensiveness of a sector. In all major industrial sectors the tendency is for increased production with a reduced work force. This is a general trend, and is partly responsible for the unemployment problem Europe is facing today. The cultural heritage sector, including tourism is, on the other hand very

⁹ 'Les vieilles pierres valent de l'or', Journal du Dimanche, February 11, 2001, French Ministry of Culture and Communication, 2000.

much a labour intensive sector. Further the whole sector is characterised by a huge backlog on necessary maintenance work, so the sector has the potential to employ many more people.

In Figure 4 we see that the cultural heritage sector creates app 26,7 jobs for every direct one, compared to the auto industry where the factor is only 6,3. Of course, these figures may be more correct if sufficient data was available, but they are excellent indicators of the employment potential of cultural heritage maintenance.

Figure 4. Employment; direct & indirect and other sectors



Another comparisons on the economic effect of historic rehabilitation on job creation compared to other sectors, has been done by the New Jersey Historical trust in co-operation with Rutgers University. Their findings are given in Figure 5, next page¹⁰.

These findings demonstrate that historic rehabilitation is a more effective instrument for job creation than both construction of new buildings and highway construction.

Percentage jobs created for USD 1 Million: Highway construction equals 100%, Historic rehabilitation 126 %, New construction 110%

Similar tendencies are demonstrated by European studies:

10.000 pounds invested in a historic building, releases additional 48.000 pounds from private and other public sources. This gives, in average 177 sq. m improved business locations, one new job, one job safeguarded and an improved home¹¹

¹⁰ New Jersey Historic Trust, 1998 etc. Have requested baseline data, not yet received. % may therefore deviate +/- 3-5%

¹¹ The Heritage Dividend. Measuring the Results of English Heritage Regeneration. English Heritage 1999.

One more interesting fact is the diversity of jobs created by investment in historic rehabilitation. From a social point of view this effect counters limiting job creation to one, or very few, economic sectors. In Figure 6. (next page) this effect is demonstrated by data from New Jersey.

Figure 5. Job-creation, comparison between historic rehabilitation and other sectors¹²

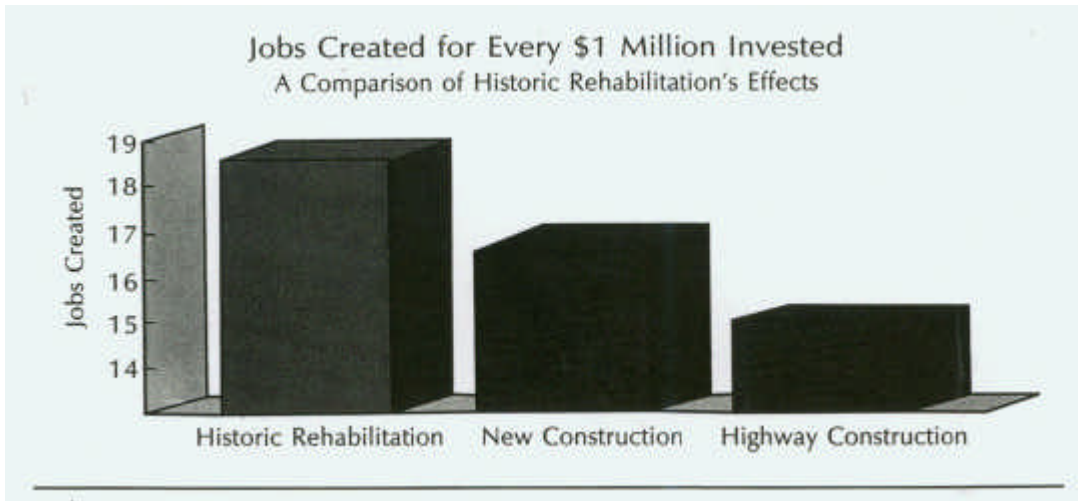
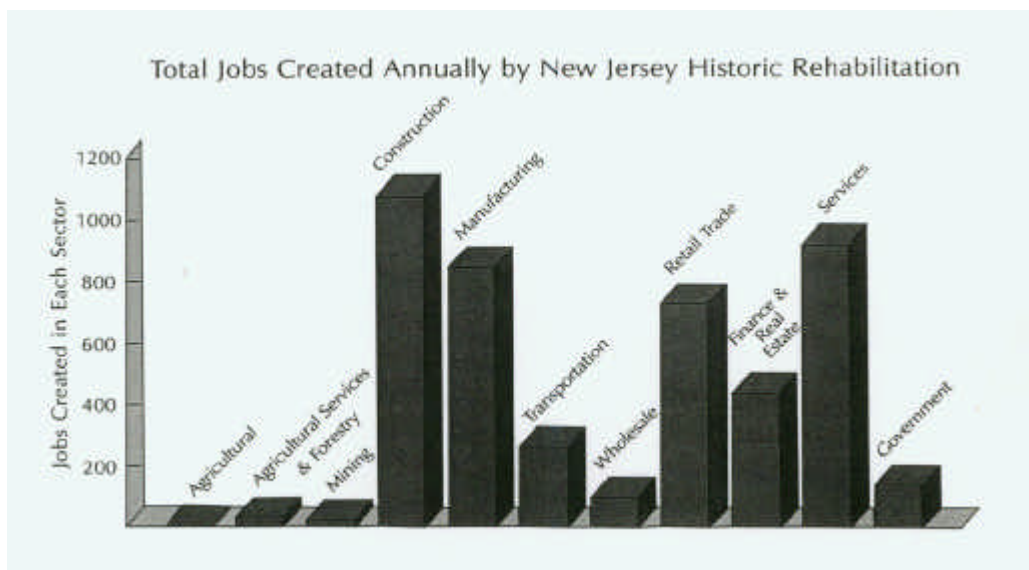


Figure 6. Employment creation through historic rehabilitation by profession / sector¹³



¹² Source: New Jersey Historic Trust -1998

¹³ Source: New Jersey Historic Trust -1998

4. Return on investment

Economic sectors are classified through their ability to generate return on investments. We will analyse a couple of cases and go through some data on income and job creation to look at this capacity of the cultural heritage sector.

4.1 The Borgund stave church

An example is analysed for the Borgund stave church. This 800 years old church needs, on an average, app 2 million NOK for to finance operations and maintenance every year. This includes staffing in the season. The church is considered an expense for society because it does not generate sufficient income to cover maintenance and staffing costs. Income from tickets at this, after Norwegian conditions well visited site, is only NOK 1.75 million. Seen in this manner the 800 year old church is an expense. To visit this church you need to travel to Lærdal in western Norway, and most tourist stay overnight. All who stay overnight visit the church. The church is the 'magnet' that bring (almost all) travellers to Lærdal. Hotels and camping are closed in the winter season and all their income is restricted to the (tourist) season. As such the church is instrumental in generating income for other activities in Lærdal; hotels, camping, souvenirs, retail, transport, etc. The relation of the income factors of Borgund stave church is illustrated in Figure 7. page 8.



We can calculate¹⁴ that:

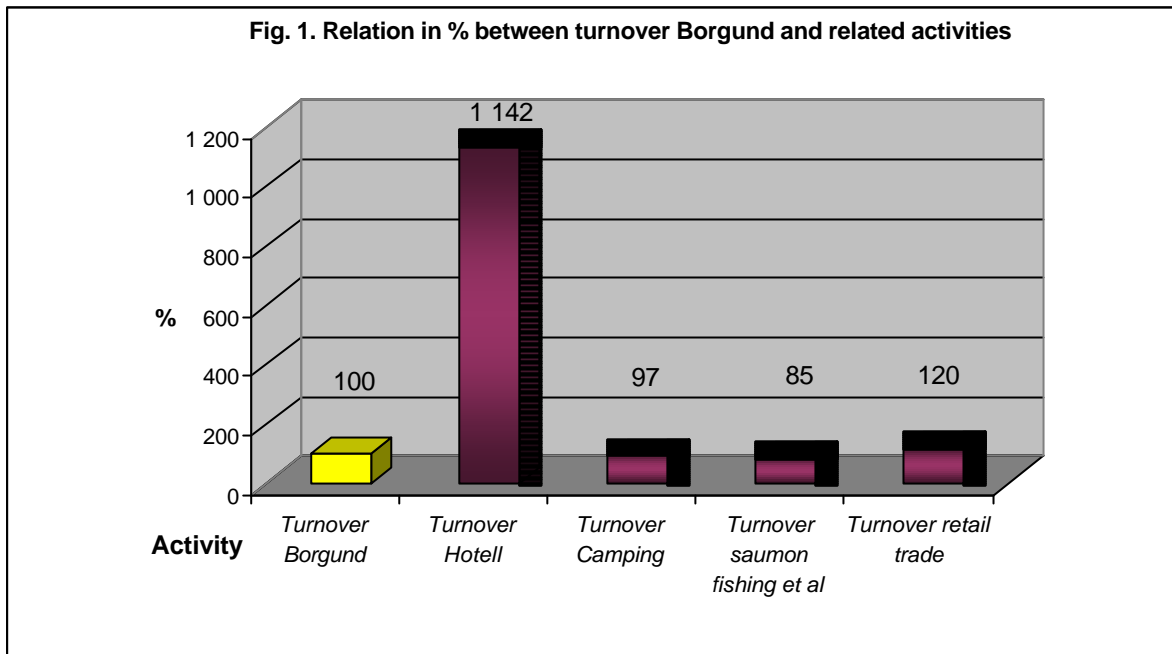
? *Borgund stave church is instrumental in generating 168 man years pr. year.,*

? *this employment generates NOK 11 million in tax income to society pr. year.*

The turnover generated to society, including the church with its 15 employees, is **NOK 27 million** pr. Year, 1.250 % higher than the turnover generated by direct ticket income at the church site.

¹⁴ Notes: Suppliers and public administration / government calculated by use of 'NHO model' (NHO is Norwegian Confederation of Business and Industry) Personal income calculated at average salary of NOK 220.000,- (Euro 27.500). Taxes calculated on the basis of average income tax of 30%.

Figure 7. Relation in % between turnover Borgund and related activities¹⁵



4.2 Income created by investments.

In a study from The New Jersey Historic Society looks at on investment from historic rehabilitation. Their focus in on income creation and job creation¹⁶ per invested unit. The result of analysing income created through investment in historic rehabilitation their results is shown in Figure 8.

Figure 8. Income created by investment in historic rehabilitation compared to other economic activities¹⁷



¹⁵ NDCH Internal paper 2002. NOU 'The past shapes the future', 2002.

¹⁶ See Figure X page Y on jobs created by investment in historic building rehabilitation.

¹⁷ New Jersey Historic Trust "title", 1998 etc. Have requested baseline data, not yet received. % may therefore deviate +/- 3%

1 Mil USD invested in highway construction creates app. 600.000,- in income. The figure for historic rehabilitation is app. 660.000,- . If, in percent Highway Construction is 100%, the figure for New Construction is 96 % and for Historic Rehabilitation 110 %. Historic rehabilitation generates 10% more income to society than highway construction, and 14% more than constructing new buildings.

4.3 Capitalisation of investment - French abbeys and castles

In France the most important castles and abbeys alone are responsible for 15 % of the foreign income from tourism in France, or €15.1 billion (year 2000)¹⁸. French central authorities state they use €285 million¹⁹ every year for rehabilitation and maintenance of protected cultural heritage objects. To this we must assume that private and non-governmental bodies add twice that amount, or €570 million. In total this is €855 million.

Now, of course not all this investment goes to the most important abbeys and castles, but let us for the sake of making a calculation, say that these abbeys and castles receive 70% of this money; i.e. €598.500.000. The net return on this investment is app. €14.5 billion. Based on this, the capitalisation factor²⁰ is 2.424%. But just to demonstrate the need for more reliable data, the investment factor would increase to 2.843 % if the abbeys and castles received 60% of the money.

Looking at the effect of only the public investment; as a trigger releasing the remaining funding and income, we will get different figures. For the money invested by public administrations; if 70% goes to major castles and abbeys, the capitalisation factor is 7.569%!

If we use similar calculation for the Borgund stave church, assuming 2 million for maintenance etc. is paid by the public administrations every year, the capitalisation factor for this investment would be: 1.350 %

Let these examples also be a reminder of our need for more reliable and valid data for the cultural heritage sector. As the example demonstrates we have some figures but are lacking critical data elements allowing us to make precise calculations based on empirical facts, analyse and fully exploit our findings.

So when we state that investments in maintenance and upkeep of CH buildings are capitalised to society at a rate of 1/10, we are making a conservative statement relative to the figures of our calculations.

¹⁸ 'Les vieilles pierres valent de l'or', Journal du Dimanche, February 11, 2001. Source: French Ministry of Culture and Communication, 2000.

¹⁹ Data from NDCH survey May 2003 from French Ministry of Culture and Communication.

²⁰ Income minus investment, in % of invested funds.

5. Other economic effects of historic rehabilitation

We would here just like to mention some other economically beneficial effects of historic rehabilitation, which has not been included in our examples so far.

5.1 Chalk and cement treatment of facades*Chalk based treatment has a better environment profile, seen in a lifecycle perspective than cement treatment. Chalk uses only half the amount of energy and generates only half the amount of 'greenhouse effect' as cement. Chalk gives only 1/16 as much acidity, 1/19 as much seeping of minerals to the soil. After use the cement must be transported to a special depot while chalk can be used directly for soil improvement²¹.*

5.2 Maintenance costs*If you chalk the facades of a town apartment house, instead of using plastic based painting, the yearly maintenance costs will be reduced by 50% in a perspective of 100 years. Or, put differently, in a long range perspective it is 2 times as expensive to use plastic paints as compared to chalk paints. In addition chalk contains no poison and no threats to the environment²².*

5.3 Waste*If you rehabilitate a town apartment house you produce app. 7 tonnes of waste material. If the same apartment house is torn down / demolished and a new house is produced you produce 8.703 tonnes of waste. Or 1.243 times more waste!²³*

5.4 Raw material for entertainment industry

Many movies and television films need a historic backdrop, they need a historic location to shoot scenes. For this there is extensive use of historic and protected buildings, for authentic and historic cultural landscapes and townscapes. We have not calculated the value derived from such use of historic environments and individual buildings. A number of PC-games also make use of historic buildings, maps, clothing etc. for their games and their historical setting. The value generated by such use of cultural heritage has not been calculated.

²¹ Source: Norwegian Building Institute 8880/01

²² Source: Norwegian Building Institute 212/1997

²³ Source: Norwegian Building institute 09901/01

7- The economic effect – summing it up.

88 % of 3.000 persons asked are of the opinion that the historic environment is of importance for initiating new jobs and to get the economy geared up²⁴.

The most important findings of this paper are:

1. Historic rehabilitation creates 13% higher return on investments than new construction and 16,5% more jobs. It also produces 1.243 times less waste
2. Historic rehabilitation creates app. 10% higher return on investments than highway construction and 26,6% more jobs
3. The ch sector creates app 26,7 jobs for every direct one, compared to the auto industry where the factor is only 6,3.
4. Cultural heritage tourism generates incomes in trade and services to Europe in the order of Euro 335 billion pr. year.
5. The European cultural heritage sector assures employment for more than 8.000.000. persons
6. Investments in maintenance and upkeep of cultural heritage buildings are capitalised to society at a rate of 1/10.
7. Only 6-10% of daily spending left at cultural heritage site, the remaining money flows to society around the site.

In this conclusion we must also emphasise the following important facts:

1. These studies and the figures given are of an explorative nature. From a social science methodology point of view the empirical data is insufficient to be able to sufficiently verify the figures and conclusions. But, on the other hand, we possess sufficient data to develop hypotheses for future testing. This is exactly what needs to be done. More research needs to be done to verify what the present explorative study expounds. The first step would be to collect all the available empirical data which is presently 'lying around' in national administrations, tourist institutions and NGO's working with cultural heritage.
2. We intend to continue this work in the future, given adequate funding.
3. We have tried to make conservative estimates and not exaggerate, taking into account the methodologically inadequate empirical data and the ensuing need for calculations and stipulations. Similarly our conclusions are also based on not wanting to exaggerate. In all I believe the figures are conservative rather than radical. But, anyway, these findings need to be substantiated through more valid and reliable empirical data.

Oslo 10.12.2003

²⁴ Source: *Historic Environment Review Steering Group; Power of place. The future of the historic environment.* 2002