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To examine historical exterior colour schemes in rural communities - a method to achieve local identity

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Abstract

Colour is disregarded in the analysis of the grammar of a building façade. Contemporary architecture, as well as traditional historical architecture, is built on a relation between colours. Colour schemes of vernacular architecture is a part of the local regional heritage. A re-established exterior colour scheme in rural areas would strengthen the local identity.

In Sweden the dominating part of vernacular architecture dates to the 19th century. The identity of many rural areas is expressed in these buildings: social prestige, local building constructions, materials and colours. This paper presents a PhD-project aiming at verifying the existence of local colour schemes.

Regional and local authorities supply information about local, traditional building material and constructions, but it is difficult to find relevant information about strictly local traditional colour schemes and the changes of these colour schemes in time. Colour schemes can be reconstructed through the analysis of locally produced and used pigments, one of the goals of this project. The results are applicable also on contemporary architecture. To work with rural houses in small communities is a practicable way to establish a method by which the local public is encouraged to participate in the protection of the local cultural heritage and to relate to the local historical identity. A presentation of the results should be both an inspiring, regional and locally based, antithesis to the global flow of information offering the last "make-over" of your home, and a substitute or a complement for legislators and protection authorities and agencies.

Keywords: *local colour scheme, 19th century, vernacular architecture, cross sections, regional characteristics, historical context, architectural paint research*

1 Introduction

To many people colours are essential when experiencing and analyzing architecture. The relation between the colour scheme and the appearance of the building is significant. Estate owners in rural areas often paint their houses themselves and in all kinds of magazines there is information and practical advice available on how to do “a home make-over”. The paint industry globally publishes trendy colour schemes every spring influencing the paint customer. The modern, rationalized structure of the paint industry with markets in many countries, or even in many continents, makes the situation very different from that of 30 years ago. Even more different was the situation of the mid-19th century, when paint was produced locally by the painter himself or by the house owner. Would you wish to restore the facade of your early 19th century house using the original colour scheme, information is hard to find.

The situation can be seen in different countries and in different cultural contexts. The history of each country is different but the complexity of the issues and the confused situation as to original colour schemes, are much the same in many countries e.g. in Sweden, Italy and Brazil. It is a global question.

In contemporary Swedish architecture it is clear that colour schemes have a local approach. The question is if this was true also for older, historical periods. Is it possible to trace both a local, geographical and a historical differentiation with respect to colour schemes? To enhance the awareness of local colours and their importance for the interpretation of local architecture through the analysis of historical colour schemes, is a vital task. The rural areas of southern Sweden are dominated by houses erected in the 19th century, and the PhD-project (initiated in 2002) studies historical and geographical aspects of colour schemes.

What are the regulating efforts of legislative authorities to support the choices of locally verified colour schemes? I will briefly describe the situation in Sweden today. In the rural areas of Sweden the choice of colours and paint is simply not regulated at all. In smaller villages, property owners of building objects with more than two apartments has to apply formally for a change of colours. Villages of a certain cultural interest can be regulated as to e. g. height of new building or roof angle. The normative system is usually regional or local and seldom concerns the colour schemes of existing buildings (PBL (1987:10) 3 kap. 10§, 3 kap. 12§).

The most common way to deal with colour schemes in areas of cultural interest is to inform the property owner when he applies for a colour change permission (Allmänna råd om ändring av byggnad. BÄR. Allmänna råd 1996:4. Ändrad genom 2004:1). The amount of effort going into this consultation varies with each local community. But even in the most ambitious cases the information about colours is not based on scientific grounds and the local perspective is missing. There are general colour schemes in several districts in



Fig.1 The overwhelming amount of information as to colours cause a disorder of colour schemes of the facade. Leaving the details without the necessary accuracy, as in this example of a house from the 19th century, where drain pipes, fence, gable and door have the same bright blue colour.

Sweden both for cities and for some rural areas. The colours are general though, and there is no instruction as to how to combine them to create a locally befitting colour scheme, typical of a certain area. Certain buildings, chosen by the regional board, are protected (byggnadsminne) by laws (Lagen om Kulturminnen m.m.1988:950 and Kulturminneslagen). These buildings are studied more closely and depending on the reason for the special protection program an investigation of the colours and the colour scheme is sometimes carried out. City planners, antiquarians and conservators, when asked how to increase the public consciousness of colour schemes in local communities (e. g. in a fishing village), declared that they prefer information to legislation. But in some recent cases in Sweden, it is evident that lack of money to pay for colour scheme investigations leave city planners with one remaining solution: legislation without relevant scientific investigations.

The fact that the information given by public authorities on colour schemes is too general is due to the fact that it is not based on scientific methods. The background could be a study of contemporary colours and of old photographs, accessible more or less by chance. Very few efforts are made to investigate colours in a previously defined area or to interpret the evolution of local colour schemes of different geographical areas. Were this done some colours and colour schemes could be completely excluded and the information more suitable to the specific local community.

2 The search for the local facade colour schemes

To re-establish the colours of common houses in rural areas, from the 19th century, where no legislation has protected the buildings, is not easy. Is it, at all, possible to carry out investigations and get reliable results? The question is relevant if the results are to be considered scientific. Therefore the delimitations in terms of time and geography were carefully defined. Consequently it seemed especially important to find buildings with unspoiled façades. To establish whether a panelling or a plaster is original, i. e. from the time when the building were erected is a difficult task. An analysis of the details of the façades, such as handmade nails, the shape of wooden details as cornices and the type of mountings and hinges of windows seemed to be the best method (Fig. 2).

Together these details provide fairly reliable dates. In some cases further information was given in interviews with the present owners of the buildings, often property owned by the same family for generations. Further the dates were ascertained in archival material and in secondary sources.

The presuppositions of the project were several: vernacular architecture is a neglected field of research; the character of the evidence is suitable in the sense that rural houses in



Fig 2. The analyses of details such as these are necessary to decide the age of the façade material, the only possibility to establish a reliable date. The façade could not have been scraped clean since it seems to be quite clear that the idea of scraping a whole façade or even a couple of windows is a modern custom, from after the 1970:s.

many villages or districts are contemporaneous; and thirdly the attraction in being able to strengthen the character of local communities by producing knowledge of local colour schemes of 19th century buildings. In vernacular architecture, especially in urban areas of particular cultural interest, the effects of global changes in colours and colour schemes are often drastic and obvious and thus easy to study. Another important aspect was that the outcome should ideally in some way benefit the local community where houses still had their original functions. The geographical delimitation to the south of Sweden chosen because of the obvious differences in colours in this area today. In the north of Sweden the colour schemes are geographically more similar. The effort was made to find out if the differences in southern Sweden were historically verifiable.

The method of this project, triangulation, relies on several sources, indispensable in this kind of historical research. Each source gives some information but the result is not reliable until counterchecked in a different source. Each source has weaknesses but taken together they form a pattern (Groat, L. & Wang, D. 2002). A short description of the sources used in the project will follow: Oral sources: In the early phase of the project short interviews with building antiquarians at county museums were carried out, to extract information about suitable geographical areas with relevant buildings. Later there were interviews with estate owners and other people with local or regional knowledge. The informants gave information as documents and iconographic material previously unknown.

To get information, in situ, about the layers of colours of the façades, two methods are reliable: colour steps and microscope analyses of cross sections of paint samples (Hædersdal, 1999).

Colour steps from the façades of objects are pedagogical and not time consuming. Microscope analyses of cross sections are more reliable but not convincing in the meeting with the public and the estate owners (Fig. 3). The most reliable way to work is to use both methods. The colour step-method is

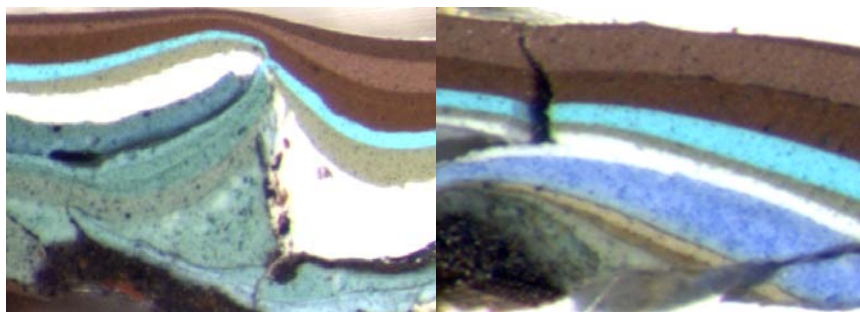


Fig 3. Cross sections of paint samples from windows showing, in this case, similarities in colours and even in the order they appear, from the top the outer layer to the bottom and innermost (Vik, Albo hundred, Scania county).



Fig 4. Wall-papers illustrating the farm when it was newly erected, an irreplaceable piece of evidence, dated and with clear information about the original exterior colour scheme (Hemmingsmåla and N. Röhult, Lister hundred, Blekinge county).

used so as to be able to see the colours in situ, and not least in daylight, whereas to be sure of unveiling all the paint layers, microscope analyses are added (Hædersdal, 1999).

Archival material and secondary literature are important complements to the study. The problem is the information is scarce, especially when it comes to local differences in colours and colour schemes. The literature, and even the archival material, is of a general character, with e. g. paint and colour manuals from the 18th and 19th centuries and accidental photographs and descriptions of painters' work. Hence it has been difficult to find relevant archival material describing local conditions and colours of the 19th century.

The final source used is iconographic material, not found in archives or museums, material often indicated by the informants/estate owners. It is wall-painting, artistic paintings and private photographs in the homes of the informants (Fig. 4). In most cases the owner could date the material. This source was obviously useful and gave important information as to the buildings. This type of source has been used previously, as e. g. in Bente Lange's thesis *The Colours of Rome* (Lange, B. 1993) (Fig. 5).

Summing up: various sources and a triangulation method were used to find and analyze the colour schemes of the 19th century. An interpretative-historical approach was applied (Groat, L & Wang, D. 2002). The fact that the buildings were not chosen until the project started is of some interest.

Usually, in this type of interpretative historical research the objects of study are chosen because they are of a certain interest or they need to be analyzed in other circumstances. Instead, the buildings in this project were selected and



Fig. 5 The Palazzo Quirinale, Rome is a case where an investigation of the colour scheme has led to the implementation of new colours. The terracotta coloured façade, to the right, universally accepted until late 20th century, was changed into the 18th century light colour scheme after analyses first made by the Danish architect Bente Lange. Photo Jenny Hällström.

described for other reasons: because of their potential qualities and because it was assumed that they could provide answers to specific questions or spread light over specific phenomena. The over all question of the research project was to find ways to define original local colours and colour schemes and their development in modern times. It was therefore vitally important to find historically and geographically relevant buildings with traces of paint. The source is, strictly speaking, not the buildings themselves but the colour traces. Thus the historical approach did not include a detailed examination and description of the building. The investigation focused on the traces of colour on the façade of the building but not really on the building itself. The quantitative approach is unusual and an interpretative-historical method was not an obvious choice. The results of the project are supposed to be applicable in building conservation and in other situations where local identity, expressed in colours and colour schemes, is of interest. Thus the project eventually has a positivistic approach. A mixed methodology, an interpretative-historical approach with both quantitative and qualitative elements, seemed to be what suited an early phase of this project best: a quantitative inventory of buildings combined with a qualitative and interpretative-historical study of the archival sources and with the open-ended interviews. As work proceeds the interpretative-historical approach might be more suited. (Yin, R. 1994).

3 Results

The results reveal a connection between locality and colour schemes. Locally

produced pigments have been used, a fact that is of vital importance for the development of local colour schemes. This is not because of the unique qualities of these locally produced pigments but because of they create social and functional differences. The pigments are neither locally produced anymore nor in use any longer but could easily be replaced with similar modern pigments still in production. There is also a difference between colour schemes of different types of houses within the same geographical area: fishermen's houses are different from farm houses two km from the coast and this is true also for out houses and details of the façade. It is also possible to find clear distinctions between geographical areas with the same building typology within a distance less than 40 km.

3.1 The south coast – Scania county, Vemmenhögs and Ljunit hundreds

The southern rural part of Sweden is dominated by a 19th century building tradition with many small farms and along the coast small fishing villages. Some of the farmers have had better economical conditions and have built bigger houses of better materials. Despite this the colour schemes of farm houses and fishermen's villages have much in common today. The houses are, in most cases, limewashed white with either green or brown windows. Investigated buildings of both types show that this was not always the case. The original lime wash colour scheme of the farmhouses was light colours: light blue, light red, light green and even reddish purple (Fig. 6). These colours are practically forgotten today, or at least not visible anywhere. Today farm houses in this area are lime washed white, or have red brick façades. The fishermen's houses on the other hand were in all cases, but one, originally white lime washed. The exception was a fisherman's house inhabited by an artist who washed his house red in the early 20th century. Windows and doors are often green today and this seems to have been a common colour also in the mid 19th century. The pigment used from the



Fig 6. A typical example of vernacular southern Scandinavian architecture of the mid-19th century. White limewash is the most frequent colour of farm houses today but yellow is slowly becoming more common. A closer look at the uncovered patches reveals the light red still used in the late 1960:s, as confirmed by the owner in a short interview (L. Isie, Vemmenhög hundred, Scania county).

1930:s is a chrome oxide pigment which at that time went down in price. The inner most layers of paint of windows and doors are green, probably painted with a paint containing the pigment zinc green which is a more yellowish pigment. During the early 20th century dark brown was common for doors and windows. The farms had as it were ochre coloured doors and windows of pine, probably imitating hard wood. There are examples of farm houses with light green windows on light red façades, colour schemes the inspiration of which came from country manors close by. (Ulväng, G. 2005).

3.2 East coast area – Scania county, Albo and Järrestad hundreds

The next area investigated was appr. 40 km east of the previous area. It is similar in many ways to the first area: the building techniques, the period during which the houses were built, the architectural typology and expressions. In spite of this the colour schemes differ substantially. The farms 3-5 km inland originally had a lime wash mixed with a locally produced iron red pigment, a bi-product from a mining industry in the area. Production in the mine ended in the 1920:s but the colour schemes of the area partly still include this terracotta-like colour, even if not the same pigment is used today. The doors and the windows of the farm houses of this area were difficult to evaluate because of their bad condition and the lack of relevant paint layers.

As compared to the south coast, where houses were homogeneous in their colour schemes, the fishermen's houses along the east coast were very miscellaneous (Fig. 7). This is true for original colour schemes, for the colour



Fig 7. The building to the left is a typical fisherman's house or rather a captain's house. During the second half of the 19th century the fishing villages along the east coast were inhabited by captains who probably brought new ideas and new colour schemes as well as new designs for the façade. Compared with other fishing villages along the south coast light and bright colours of plaster instead of white is a notable distinction, as are more articulated details of the façades, e. g. windows. To the right a close-up of the light red colours. Which in this case, indicates, the possibility to through an ocular investigation find out of the past colour schemes in situ (Baskemölla 5:19, Albo hundred, Skåne county).

schemes of the plastered mid 19th century façade, and for modern colour schemes even if the saturation of the colours seem to have been less intense in the 19th century. The colours of the windows were like those of the façades. Clear blue and red were found among others. (Kjellström, R. 2004). An interesting found was that the contemporary used blue colour at doors and windows, was found among the inner layers of paint though this pigment at the time; late 19th century, was still quite expensive. Since this area during the early 20th century was explored by many artists it seems like it could be this social group that introduced the blue colour. Though the hue was rather more clear and intense at the inner layers than the colour seen today.

3.3 Coastal area and woodland – Blekinge county, Lister hundred

In this area, further north, wood was the dominating building material. The farm houses in the inland were panelled and linseed oil painted during the 19th century, and they still are. Today the most frequent colour scheme is a yellow façade with white details and windows and brown doors (Fig. 8). The investigation revealed light colours, as in the other areas, especially a light red colour and somewhat less frequent, light grey, light green and light blue. The light red colour seems to come from a locally produced earth pigment and has been mixed with white and used as a linseed oil paint. Soil in Sweden can seldom be used as earth pigment. It is possible to find descriptions of exploitable



Fig 8. The yellow colour of the panel, with the white details and windows, is the most common colour scheme of this area today. This house, erected in 1834, was originally neither panelled nor yellow though. It had visible timber joints and was covered with red emulsion paint. When panelled, it was painted with light yellow linseed oil, gradually brighter yellow as time went by (Stora Rösjö, Lister hundred, Blekinge County).

findings but practically never was there a production developed. (v Linné, C. 1749, 1975). The finding of a locally produced earth pigment is thus quite unique. (Kjellström, R. 2004).

The windows and the details of the façade seem to have been white, as they still are today. The doors were either reddish brown, or, as in some cases, polychromatic painted in brown, white and yellow. It is not clear if these polychromatic doors are original.

The fisher villages of this area have a history of miscellaneous colour schemes. Unexpectedly the houses have been panelled and painted with linseed oil paint. It would have been possible to maintain the façade without panelling it, either by tarring it or by painting it with a red, inexpensive emulsion paint. The fact that this was not done must mean that the fishermen in this area lived under better economic conditions than those of the southernmost part of Sweden, described above. The investigation shows that many different colours were used: light yellow, brownish orange, grey, green and white. The details are sometimes painted in a darker hue, like in Swiss cabin architecture. In other cases the more common colour scheme with white details and windows appear.

3.4 The island of Öland - Runsten hundred

Finally, I would like to present an area on the east coast of the island of Öland, off the southeast coast of Sweden. The houses here are all farms and many of them have small cabins close to the sea for season fishing. A direct comparison (farm houses vs. fishermen's dwellings) within the area is thus not possible but the buildings in this area have interesting similarities with the farms of the previous area, Lister hundred, in Blekinge. The two areas seem to have had the same source of inspiration: smaller country manors from the 18th century with balanced architectural expressions and in light colour schemes. The buildings in Runsten hundred on Öland were slightly smaller and had not been panelled when they were erected in the 1850's, as in Lister hundred, Blekinge. In most cases they were panelled appr. 70 years after they were erected, in some cases not at all. For the understanding of the development of the colour schemes in this area this was an important discovery. (Kjellström, R. 2004).

A panel was a great expense during the 19th century. The wood was not something these farms had but it had to be taken from the mainland. Therefore most of the farmers' dwellings were not panelled and the crude timber construction was instead tarred. To the grammar of the façade was added windows painted in white linseed oil and a polychromic painted main entrance door. The central door was in many cases surrounded with a carved portal to accentuate the main entrance as a welcoming feature. In this context the expensive and colourful oil paint was used. Later on, if the building was panelled, the main door was disregarded and the valuable panel took over as the new, expensive and prestigious part of the facade.



Fig. 9 From the middle of the 19th century the light coloured and balanced Swedish 18th century mansion house was the inspirational source for this type of architecture. It is in many ways similar to the houses of the previous area, Listers hundred in Blekinge, but the colour schemes course of events are different. To the right an example of the colour scheme before the panelling, with dark tared wooden construction and polychrome painted doorway. To the left the colour schemes after the panelling with light grey panel, white details and brown windows and door (Gillsätra and Spjutterum, Runsten hundred, Öland county).

Houses were panelled partly for aesthetic reasons, partly for practical. The panel stopped the draught. During the early 20th century when many of these façades were in fact panelled, the colour schemes were dominated by light colours in linseed oil paint with green, red, white, brown or even blue windows (Fig. 9).

Now the main door was painted in one colour, often the same colour as the windows. A new colour scheme was established with the panelling. The reason was not only the change from tar to linseed oil paint of the façade but also the change of focus from the central, carved door to the panel.

4 Conclusions

The historical colour schemes described above, dating mostly from the middle of the 19th century, are almost vanished today. The most intense period of change of the colour schemes was the 1950:s, a period of economic boom and of structural transformation of agriculture. As an effect of these structural changes the farms were “depopulated”, machines took over. This probably led to the most striking feature, the simplification of the maintenance of the buildings: all the buildings, outhouses as well as main buildings, were now lime washed white (which of course is the natural colour of lime wash when no pigment is added). To distinguish the different types of houses by white washing the out houses and breaking the white wash into light colour at the mansion house was probably too costly, counted in time. During the last 20 years there has been a change. New painting materials and new colour schemes are evident on the façades of the farm houses in all the examined areas. Specifically yellow in different saturations is

increasing, particularly in strong saturations. A yellow paint broken by the paint store and ready to use for the estate owner.

The conclusions for the Blekinge area with timber joint buildings show similarities with the areas with lime washed dwellings, e.g. the change from a tradition of various light façade colours to one dominating colour, yellow, of the panelled timber joint dwellings. It is clear that the increasingly saturated yellow evolves from a light yellow colour of the late 19th century.

The Öland area is more complicated. Originally the façades were not panelled but just tarred. In the early 20th century the façades were panelled and painted in light colours with yellow as the dominating colour during the last 20 years. The yellow dominance is not strong as in the other areas though.

Another astonishing result, and one which well answers to the aim of the project to find locally grown colour schemes and pigments, is the fact that local pigments, bi-products from industrial mining and earth pigments, were found in the colours. Both are vanished today but the colour schemes still echo of them. This evidence verifies the main idea with the project, to find colours and pigments, which emphasis the local characteristics of the building from the time when it was erected.

The predominance of yellow over the last 20 years is a simplification due to many reasons. The multinational paint industry in Sweden produces information material where new "old fashioned" colour schemes are presented. They market a yellow colour called "mansion yellow" for plastered and panelled houses and a red emulsion paint for buildings with visible timber joints or raw panelling. The "old fashioned" colour schemes are made up and have no local or regional connection and often the order between details, such as cornices, trims or corners, and the façade is distorted. Local colour schemes of the 19th century, once a clear and important part of vernacular architecture, are partly lost today.

Another reason for these changes is the fact that we travel more today than we did 50 years ago. I am convinced that the changes of colour schemes during the last 30 years are due to these social factors. (Kjellström, R. 2004). Ten years ago the window frames and doors of many 19th century rural houses were painted bright blue, details that had previously been brownish yellow, green or red. This wave of intense, ultramarine blue spread over the façades all over Sweden. Buildings with visible brick façades, with plastered façades, small outhouses and big farm houses, they all got bright blue windows and doors. At the time I was working in a paint shop with a vast assortment of paint made of traditional raw materials. The source of inspiration was clear when the customer said: "Do you have that beautiful, bright blue colour they have in Greece?" Influence from other countries is not a new phenomenon though. Sweden in the periphery of Europe has always borrowed from other European countries and from other cultures. It is a part of all regional development. The difference is that contemporary influence (like e.g. Greek blue) is much stronger and not mollified

by an adaptation to the domestic context. The imported colours are taken out of their architectural context and they differ from locally established colour schemes. In the globalized world there is no time for reflection and for transformation or adaptation. New colours are immediately delivered as possible choices in our domestic architecture. During other eras for instance Renaissance and Neo-classicism new architectural elements entered domestic, traditional architecture but piece meal and with adaptations and limitations.

My project shows clearly that there is much to be done to enrich and strengthen the knowledge about regional and local colours and colour schemes. The results can be seen in opposition to the globalized approach, publically established within the paint industry and among estate owners. If my study can help to give new knowledge and develop a more profound attitude towards colour schemes, also among architects and building archaeologists, it shall have fulfilled its aim. (Kjellström, R. 2005).

Acknowledgement

All pictures by the author, unless noted otherwise.

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