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Synopsis

Name: Aidan Walsh

Title: ' The Geddesian Paradigm, demonstrating the three-step process of Survey, Analysis, Plan, represents the fundamental methodology through which building conservation is executed.'

The aim of this project is to critically analyse how the application of the Geddesian Paradigm supports the production of technical documents. This will be done by breaking the project up into three sections, survey, analysis, plan of intervention

To achieve the above, the research follows a set five step methodology. The first step is to outline the aims and objectives to outline what exactly it is that the report is hoping to achieve. Then the study area within which the research will be carried out is identified. The next step involves the gathering and organising of source materials, both primary and secondary. The fourth step involves the production of the main body of the report. The fifth and final step outlines the conclusions and recommendations obtained from the research.

The research has found a number of things in relation to the Geddesian Paradigm. It supports technical documents in many ways. The survey of historical buildings allows you to gain an understanding as to the exact historical structure and materials of the building. It allows you to assess how old the building is and gives you an idea as to the importance of the building to the local area. The analysis allows you to see the full extent of the damaged or decay. It allows you to investigate each individual element and see the extent of the repair that is required. The third and final step is the plan of intervention. this is probably the most important step. It is here that the level and amount of intervention being carried out is decided.

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Fig 0.1- <http://static.skynetblogs.be>

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Introduction

Introduction

The Geddisian Paradigm

Introduction.

This report aims to critically analyse how the application of the Geddesian Paradigm supports the production of technical documents. The Geddesian Paradigm was created by a man named Patrick Geddes. In order to achieve his structuralist perspective he had to be very radical. He sought views from continental Europe, He called for a structured debate on what was happening in socio-economic terms, with the aim of deconstructing why approaches were being taken and how they could be improved.



(Fig 0.1- Patrick Geddes)

His basic three step plan was survey, analysis and plan. His methods are still being used today and this reports seeks to show how they can be used. The report is based on the survey of a historical building and will be broken up into three sections. They are as follows:

1. Historic Building Survey
2. Diagnostic Analysis
3. Plan of Intervention.

Chapter One

Historic Building
Survey

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Chapter One

Historic Building Survey:

1.0 Introduction.

The aim of this chapter is to offer an insight into the steps required carrying out and producing a Historic Building Survey. There are several steps required in this case and they are divided up into four sections. Section one will look at the historical background of the building and why it is necessary to know this. The next section will look at the preliminary photographic survey. It will look at what it is and how it is done. The preliminary conditional survey is the next section. Again it will look at what it is, how it is carried out and what insight it gives you into the building. The fourth and final section is the conclusions section. This will offer concluding remarks to the findings of the chapter.

1.1 Historical background of building.

This section involves the investigation of the historical background of the building. This would be done by investigating manuscripts, collections, printed source materials and trace details. These items would allow one to obtain information in relation to the original construction and historical modifications to the building. It would also reveal the ownership of the building and the people behind its design and construction. The original materials and modified materials would also be discovered. These are key issues in terms of surveying a historic building as they will show the original structure, design and materials of the building.

1.2 Preliminary photographic survey.

The preliminary photographic survey involves the photographing of all elements of the building from bottom to top. The survey would usually start at the foundations and work its way up to the roof, taking into account the various features on the way up such as plinths and windows. It would then move to the interior and follow the same process of working from top to bottom. The preliminary photographic survey will allow one to get a real feel for the original materials and any alterations. It would also give a feel for the structure of the building and the type of design it is (eg. Tudor gothic). It will reveal any areas with visible decay or damage and show you the areas of the building that require remediation.

1.3 Preliminary conditional survey.

The purpose of the preliminary conditional survey is to provide a physical assessment of the building. It will identify problems within all areas of the building such as structural, mechanical, electrical, plumbing, fire protection, site layout, site utilities, storm water management, soil erosion, etc.... The survey will involve the review and investigation of drawings, specifications and reports. Photos are used as part of the conditional survey. This will allow a surveyor to produce a report.

1.4 Conclusion.

In conclusion the historic building survey provides a person with an idea of the history of the building and its structure. It will allow them to photograph, identify and assess any problem areas in the building or surrounding site. When all the information has been gathered and surveyed it will be used to produce a report which will contain their findings and recommendations.

Chapter Two

Diagnostic Analysis

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Chapter Two

Diagnostic Analysis:

2.0 Introduction.

This chapter aims assess how diagnostic analysis is carried out on a building and why it is a necessary step in the Geddesian Paradigm. When carrying out analysis of a building, a surveyor is expected to have a range of basic equipment on him at all times. The equipment is as follows:

1. High Vis jacket.
2. Steel toecap boot.
3. Note pad.
4. Torch.
5. Hammer.
6. Measuring Tape.
7. Swiss Army Knife.
8. Binoculars.
9. Hardhat.
10. Goggles.
11. Earmuffs.
12. Gloves.
13. Digital camera.
14. Mirr.
15. Crowbar.
16. Harness

This chapter will be broken up into six sections so that each individual element of the diagnostic analysis may be investigated properly. The first section will look at the diagnostic analysis of foundations and what is meant by it. It will investigate how it is done, the tools used and the information we can learn from it. Section two will look at the analysis of the walls and will again investigate what is meant by it, how it is done, the tools used and the information we can learn from it. The Same process will be carried out for section three, four and five. Section three will look at the analysis of the roof, section four the fenestration/ doors and section five the Internal finishes/ fittings. The sixth and final section will offer concluding remarks to the findings of the chapter.

2.1 Foundations.

The diagnostic analysis of the foundations involves investigating there structural integrity of the foundations and any problems with them. There are many ways in which the foundations can be analysed. As it is a historic building careful consideration must be given. Geo technical surveying can be used. This involves ground testing through bore holes. This can indicate evidence of subsidence, ground water and obstructions.

Radiography is an option. This involves the use of x-rays that are used to infiltrate the foundations and detect an defects. Another option would be impulse radar. This involves a pulse of radio energy which is transmitted along a pre-determined survey line. The pulse can determine the depth of a crack thickness of material and voids. The final option would be microwave analysis. The strength and direction of projected energy which is reflected back from surfaces and can record inconsistencies, faults and hidden defects

2.2 Walls.

The diagnostic analysis of the walls involves investigating their structural integrity and locating any possible weaknesses or problems within the wall. As with the foundations, radiography, impulse radar and microwave analysis can be used to analyse the walls. Another form of analysis would be thermography. This uses infra red energy radiated from elements of the building and can determine levels of heat loss and temperature variation. Infra red photography is another option. This will indicate the presence of increased moisture and sub surface deterioration. Finally acoustic testing can be carried out on the walls. This uses sonic transmission and sonic echo with transducers on either side of the wall to detect, voids, faults, fissures and thicknesses.

2.3 Roof.

The diagnostic analysis of the roof involves investigating its structural integrity and locating any problems within it. All of the above forms of analysis mentioned in walls can be used to analyse the roof. Another form is fibre optic probe analysis which helps detect small deficiencies in hard to reach/see places. All forms of analysis will help detect any deficiencies or problems within the roof and allow you to assess the extent of the damage without causing any damage to the historic building.

2.4 Fenestration/ doors.

The diagnostic analysis of fenestration/doors involves investigating their performance and locating any problems with them. The first form of analysis would be visual, touch and moisture meter. Their performance could be monitored using thermography. This uses infra red energy radiated from elements of the building and can

determine levels of heat loss and temperature variation. Micro drilling could also be used to help detect any problems in timber frames or doors.

2.5 Internal finishes/ fittings.

The diagnostic analysis of internal finishes/fittings involves investigating the internal elements of a building. It will identify any problems with them. Visual and touch are the first and most obvious forms of analysis in terms of internal finishes/ fittings. Due to the fact that internal finishes and fittings can come in a range of different sizes and materials almost all of the forms of analysis mentioned in the walls section above could be used depending on the material. All forms of analysis would allow the detection of faults and deficiencies.

2.6 Conclusion.

To conclude the diagnostic survey provides a surveyor with key information. It informs them as to the buildings structural integrity and the condition of all of its elements. It allows them to truly investigate the overall condition of the building in depth. With the information gathered from the diagnostic analysis it would be possible for one to draw up a detailed report containing their findings and recommendations. These would allow the building to be repaired and altered so that the problem does not occur again. It would also allow them to provide a client with a fairly accurate price for fixing any problems.

Chapter Three

Plan of Intervention

The Geddisian Paradigm

Chapter 3

Plan of Intervention

3.0 Introduction

The third and final chapter aims to give insight into the steps involved in completing a plan of intervention. This chapter will be broken up into five sections. The first section will look at the background/ significance of building. It will look at how you assess the importance of the building to the local area. Section two will look at the mission statement, what it is and how it is done. The next section looks at Contractual details. It will look at the steps that must be taken in obtaining a specialist contractor and the expertise required in this line of work. The fourth section looks at the Method Statement Matrix. It will illustrate a typical matrix and describe how it assists the contractor. The fifth and final section will offer concluding remarks to the findings of the chapter.

3.1 Background/ Significance of Building.

When carrying out a plan of intervention it is important that one knows everything about the particular building. Some buildings have higher levels of protection than others and therefore the levels of intervention allowed may be quite limited. It is important to know the background of the building in terms of where it began and how it got to where it is today. The building may also hold high significance in relation to its local area. It may hold social, religious or cultural meaning and therefore the significance of the building must be assessed before any works of intervention are carried out. When the background and significance of the building have been investigated it is then possible to know the levels of intervention that will be allowed.

3.2 Mission statement.

The mission statement is a very important tool in terms of the plan of intervention. It lays out the overall path and goals you hope to achieve. It will help with decision making throughout the report. It will provide a framework within which the plan of intervention will be carried out. Within the mission statement there will be several areas describing the areas of intervention. The list of goals would aim to provide a list of all the different levels of intervention and state how they are going to be completed, how long it will take and the expected finished product.

3.3 Contractual details.

Contractual details refers to obtaining of expertise in relation to the plan of intervention. One must take the correct steps in obtaining the correct persons to carry out the works, whether it be repairs or extensions. When choosing a person for the job it is important that you be fair in your choice and not be biased. You would send out the plans for the works to be carried out and await to receive tenders. When choosing the person you must choose the right person for the job that specialises in the area of conservation and has experience in the area.

3.4 Method statement matrix.

The method statement matrix allows you to layout the steps involved in carrying out the works. It shows the path as to which the steps should follow. It assists the contractor by giving him guidance and allowing him to set targets for each step of the matrix. The basic matrix which could be used is located on the next page.



3.5 Conclusions and recommendations.

In conclusion the plan of intervention is a key part of the geddesian paradigm. It helps you to assess the building and allows you to set out a list of goals you hope to achieve by the end of the intervention. It also helps you to plan out who exactly will be carrying out the works in terms of the intervention. It allows you to set out a step by step process which will guide you through the works that must be carried out

Conclusion

Conclusion

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Conclusion:

I conclude that the three step process of the geddesian paradigm supports the production of technical documents in many ways. The first step which is 'survey' allows the building to be survey and provides vital information in relation to history, visual defects and problems within the building. The second step which is analysis allows each element of a building to be analysed completely. This will allow defects and problems to be identified even if they are not visible to the eye. The third and final step which is the plan of intervention, helps you to decide what exactly it is you hope to achieve and how you hope to achieve it. The surveyor will gain an insight into the background and significance of the building. It will also allow you to plan out who will carry out the works and what they are expected to do.

They each assist technical documents in their own way. They would allow the building to be repaired and altered so that the problems do not occur again. The three step method would allow you to create a technical guidance document which would provide a client with a list of findings and recommendations. It would provide them with the proper people to carry out the works along with timelines and levels of interventions. Overall it assists technical documents in man ways.

Bibliography

Books

Journals

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Appendix

The Geddisian
Paradigm

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This is not a proper survey but instead a sample of how a survey could be completed. In a normal survey report the appendix would be full of the following things:

1. Photographs
2. Drawings
3. Reports
4. Archival papers

