

Argument:

Ab Aqua Libertas:

How water creates a sense of freedom within design.

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ARCH8030_27913
Research Project Design

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6th December 2023
Word Count: 4462

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The aim of this argument project is to argue for the content and structure of the forthcoming research project, entitled ‘Ab Aqua Libertas’. In doing this the argument project is divided into six sections. Section one will explore the structure and content for the proposed ‘Chapter 1: Introduction’. The following section, section two shifts the emphasis to explore the coming ‘Chapter 2: Literary Review’. The literary review will examine the research and literary works affiliated to the topic. Section three will treat thematic concentrations, whilst section four will focus on the forthcoming case study which will become ‘Chapter 6’. Section five will become ‘Chapter 7: Conclusion. Finally concluding remarks will be offered.

In order to assist the reader in navigating the argument project it is important that they have an appreciation of the ‘Table of Contents’ of the impending research project. The table of contents will be as follows:

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- 7.2 Recommendations to Industry
- 7.3 Recommendations to Further Research
- 7.4 Conclusion

Appendices**A- Consent Form**

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Bibliography

The benefits of the reader having been acquainted with the table of contents include, the reader being familiarised to the content and structure of the argument and therefore the research project. The table of contents also offers as predetermined structure to the argument that will logically allow the reader to interpret the argument with ease. The reader will also be able to reference back to the table of contents whilst reading the argument.

- **Introduction**

The introductory chapter to this research paper will act as a vice to prompt the reader into becoming intrigued with the proposed research investigation and in turn will persuade the reader to continue. This will therefore become the ‘Chapter One’ of the research project. This chapter will be a non-negotiable component of this report in order to certify that the reader has a groundwork of information of this topic prior to delving into the research report.

This will entail an emphasis on the research background and justification for the investigation and also on the methodology of which this report shall be based. Therefore, the ‘Chapter One’, will have the following structure:

- 1.0 Introduction
- 1.1 Research Background and Justification
- 1.2 Methodology
 - 1.2.1 Aims and Objectives
 - 1.2.2 Source Materials
 - 1.2.3 Sample Selection
 - 1.2.4 Data Evaluation
- 1.3 Guide to Research Report
- 1.4 Conclusion

1.0 INTRODUCTION

‘Chapter One: Introduction’, will begin with a concise and clear opening introductory passage to acquaint the reader with the fundamental knowledge of water-based design. This section will be vital in offering the reader an insight into the context as to why this is the

chosen topic for the research project. This section must also place an emphasis on the reasoning as to why water has very influential role in the today's modern society and how that can be applied to design.

1.1 RESEARCH BACKGROUND AND JUSTIFICATION

The research background and justification within this research project will place an emphasis on waters philosophical and historical importance throughout the ages. Understanding the background to water will be crucial in understanding why it holds so much symbology in our society, for example, in religion and culture. This section will also briefly look into the benefits associated with having water within close proximity to our beings. Within this section this author will also discuss the lack of emphasis in written works about water-based design thus far. It will also be worth noting what is to be considered international best practice and use examples from abroad to indicate what could potentially be done in Ireland in the years to come.

1.2 METHODOLOGY

Based on early-stage research it is expected that the methodological component of the introduction shall be a stratified section. This will be comprised of a series of subheadings suitable to the content being discussed. This will be in order to offer an unequivocal structure to the reader.

1.2.1 Aims and Objectives

The aims section of this report will advocate for the relevance of the themes being discussed throughout the research project and will also anticipate the points this author hopes to accomplish through this investigation. The objectives intent will be to showcase how the aforementioned aims section shall be achieved. It will also list the research statement, question and hypothesis. This will be proven through the use of source materials, a sample selection and a data evaluation.

AIMS:

1.	Research the philosophical and historical connotations attached to water.
2.	Investigate the design principles attached to water-based design.
3.	Explore how the benefits and drawbacks to having water within our environments.
4.	Prepare a water based intervention at Manor Mill, Clonmel, Co. Tipperary.
5.	Compare and contrast the research found to the case study and draw conclusions from the results found.

OBJECTIVES:

1.	Study texts and publications related to the philosophy and history of water within a societal context and how it has been carried over to design.
2.	Conduct an interview with a designer who has experience on integrating water within a design in order to find out how the design was successful/unsuccessful.
3.	Explore published experiments carried out on having water within a persons environments.
4.	Integrate water within the interior design and the respond to the move.
5.	Examine the overall findings of the research project, draw conclusions and create suggestions for the industry.

1.2.2 Source Materials

This section will focus on how the data and knowledge has been constructed. This will be divided into the categories of primary and secondary sources.

1. Secondary Sources: The secondary sources this author shall employ will be collected from various publications and novels concentrating on water-based design. Chapter 2: The Literature Review, will primarily focus on the publications; “Water + Architecture” by Charles W, Moore and also “Building with Water: Concepts, Typology, Design” by Zoë Ryan. From this authors research, these texts have the most in depth explorations of water-based design within the architectural industry and therefore will provide this authors with important information most suited to the research investigation.
2. Primary Sources: The primary sources have been selected based off of the information that this author has learned from having read the secondary sources. This author intends to utilise throughout the research project will be an amalgamation of statistical data collected, as well as professional opinions of those focused on water-based design within the industry through interviews. The interview carried out will be with a designer with experience using a water as an intervention and shall be from either Aqua Architects, London or from a local architectural firm here in Cork. This information will also be collected from this authors peers through the use of questionnaires.

INTERVIEW QUESTIONS

SECTION 1: PERSONAL

1. What is your name?
2. What is your role within the design practice?

SECTION 2: KNOWLEDGE

3. Tell me what you understand of water-based design?
4. Do you think it is beneficial to integrate exterior elements such as water?
5. What do you think the future of water integrated design will entail?

SECTION 3: PROS & CONS

6. What do you believe to be the benefits of integrating water within design?
7. What do you believe to be the drawbacks of integrating water within design?

SECTION 4: CASE STUDY

8. Do you think integrating water to this design would add to the design of the building?
9. Do you have any recommendations for integrating water to the building?

SECTION 5: ADDITIONAL INFORMATION

10. Please provide any additional information you wish to add.

1.2.3 Sample Selection

This author is considering the use of a dimensional sampling model. This will entail a smaller group who has some precedent knowledge of architecture and design in order to ensure accuracy and precision within the findings. The author chose this method as it will improve the reliability of the data collected for the research projects aims.

1.2.4 Data Evaluation

The data evaluation section will critic the information collected from the data, literature, interviews and other research. This author will use this section to objectively question, analyse and contextualise the sources in order to make decision

as to whether or not any of the sources have been misleading or inconsistent. The author will question herself on the Who, What, When and How Requirements of the data collected. The reader will find this section to be vital in order to ensure the most accurate and relevant information is available so that this author can most effectively answer the research question.

1.3 GUIDE TO RESEARCH REPORT

This research reports structure has been effectively established in order to ensure that the reader will be effortlessly guided through the investigation. This section will acquaint the reader to the arrangement of the research project in a simple manner. The structure of the report will follow a thematic form. The reader will find themselves with a strong basis of water-based design from immersing themselves in the themes of the history and philosophy of water-based design, the principles which label water-based design. As well as the multifaceted benefits of having water within a design.

1.4 CONCLUSION

The conclusion of this chapter will objectively enforce the aims of this report to the reader. This will be in place in order to orient the reader before going forward into the literature review and thematic chapters. The conclusion shall achieve this clarification through recapping the preceding statements and points which this author has considered based on her core-learnings. It will also conclude in salient lessons on design of said methodology.

Achieving a clear and concise structure within this introductory chapter will be of the utmost importance in order to propose the concept of water-based design to the reader without overburdening them with an abundance of statistics and information. This chapter will simultaneously play a role in soft launching the reader into the topic of water-based design whilst also reasoning the need for the investigation as to why water in design is so important.

- **Literature Review**

The purpose of the literary review is to compare and contrast the existing research of investigators in the field. This allows the author to gain insight into the gaps in the literature and areas that may require further research. The literature review is based in a thematic form based on what this author has researched on international models.

2.0 INTRODUCTION

The introductory section to the literary review will provide the reader with a basis of knowledge about the research topic at hand. This section will also set out the aims of the chapter and set about expectations to the reader as to what they can expect. This is crucial in order so that the reader has a prior understanding of what a literary review entails prior to engaging with the subsequent passages.

2.1 PHILOSOPHICAL AND HISTORICAL IMPORTANCE OF WATER BASED DESIGN

This next section will discuss what this author has read about the research topic thus far. The passage will provide a small introduction to what philosophy and history have conveyed about water-based design. This section will then compare and contrast what seminal and supporting works have said about the philosophical and historical importance of water within design. The main texts that shall be discussed throughout this section refer to, 'Water + Architecture' by Charles W, Moore and 'Aqua Architecture-Water the spirit of Architecture' by Adukuloo

Kudanika. This author will use these texts to create a foundation of knowledge prior to beginning the research investigation.

2.2 PRINCIPLES OF WATER BASED DESIGN

The next section shall focus around the principles of water-based design. In this section the reader shall also find a preparatory paragraph with a reasoning as to why design principles must be followed when designing with water. This section will then follow the same pattern of comparing the work of seminal and supporting authors who have centred their works around design principles, especially those placing an emphasis on principles specific to water-based design. The main principles can be referred to through reading the work published in 2020, 'Principles of Water Sensitive Design and Planning' - Coherean. The principles are required in order to properly investigate this research topic at hand.

2.3 BENEFITS OF WATER WITHIN DESIGN

This next thematic section will also discuss the works of seminal and supporting authors that this researcher has read. However, first the reader will require a small inductive piece to the theme being discussed. The seminal texts that will be referred to throughout this chapter include, 'Aqua Architecture-Water the spirit of Architecture' by Adukuloo Kudanika and 'Blue' space: Access to water features can boost city dwellers mental health' by Jenny Roe. The benefits of water-based design are extremely prevalent to the ideals of 'Ab Aqua Libertas', and from such the reader will be able to grasp the kinds of freedom that can potentially come from designing with water.

2.4 CONCLUSION

Within the concluding remarks this author shall discuss the learnings to be found from participating in a literary review. The author will also use this section to discuss gaps in the literature, whilst also highlighting the most relevant points to be found from the research undertaken. Finally, this author will also use this section to discuss the variety of works available on the topic of the research project.

- **Thematic Concentrations**

The main body of work within this research project shall be comprised of Chapters 3,4 and 5. These chapters will centre around specific themes relevant to the investigation.

The first chapter following the literary review shall focus on the history and philosophy of water based design. This will be pivotal in creating a foundation for the reader of water's deep history within society and in getting the reader to understand its relevance to the investigation.

The next chapter shall focus on the principles of water based design. This chapter will be vital as it must demonstrate to the reader how water based design has been practiced thus far and how to recognise it as such. This chapter will also provide examples of water based design that the reader will be able to effectively engage with, having already read the principles.

The final thematic chapter will showcase the benefits that having water in design can have on our mind, body and surroundings. This chapter is extremely important as it will reaffirm how water can promote freedom in a variety of forms.

Chapter 3: Philosophical and Historical Importance of Water

The chapter will focus on the philosophical and historical foundations of water, especially within design. This chapter must provide the reader with a firm grasp of the connotations that water has carried within society throughout the ages. These connotations still carry weight in our modern culture. This chapter will also emphasise how the significance of water has been displayed through architecture and design throughout history and through to the modern day.

It is important that this author must use this chapter to fully demonstrate how water has historically promoted a sense of freedom to people through the use of design. To do as such this chapter must be organised into an orderly format that best supports the research at hand. Therefore this structure of this chapter will be as follows:

3.0 Introduction
3.1 Philosophical Foundations
3.2 Historical Foundations
3.3 Conclusion

3.0 INTRODUCTION

The introductory paragraph to this chapter shall generally make the reader aware of water's deep roots in history and the philosophical connotations that it carries. Whilst, at the same time, not overwhelming the reader with long academic texts and information. This paragraph will serve as a preamble to the information that will follow in the subsequent passages.

3.1 PHILOSOPHICAL FOUNDATIONS

The subsequent paragraph will focus on the philosophical significance that water holds in many societies, religions and faiths worldwide. Throughout this passage, this author will discuss how the philosophical meaning of water has developed throughout time and ways on how this can be demonstrated through architecture and design. This author will use the works of Moore in his 1994 text to discuss the philosophical roots of the concept, for example This belief being that water is the most fundamental building block in the universe. This being because it is both, irreducible and indestructible. This passage will be crucial in providing the reader with a background as to why water is important enough to be considered as a design element.

3.2 HISTORICAL FOUNDATIONS This next section shall discuss how water has been used as a design element throughout history. This section will be used to inform the reader of how water has intrigued designers for centuries, whilst referring to examples. This author will use the works of Moore, 1994 to discuss history of water and its symbolism. This author will also used this passage to discuss the works of Kudanika in her 1994 published work to discuss water's history within design. Like in how historical examples of architecture where water played a key element within their design.

3.3 CONCLUSION

The concluding section of this chapter will join the points made in the prior sections whilst adding some final remarks of water's deep connection to humans as a society. This will conclude the first thematic chapter. By the end of this chapter, the reader will have a groundwork of knowledge about water philosophically and also how it has been integrated into design in days gone past.

Chapter 4: Principles of Water-Based Design

This chapter will focus around the principles that guide water based design and examples that showcase the principles evidently. This chapter will be fundamental in illustrating to the reader how successful water based design can be effectively achieved.

In order to best demonstrate this point the chapter must be structured as follows:

- 4.0 Introduction
- 4.1 Principles of water based design
 - 4.1.1. Functionality and Usability Principles
 - Water Sensitivity
 - Appropriate Design
 - Appropriate Maintenance
 - Adaptability
 - Usability
 - 4.1.2. Aesthetic Principles
 - Aesthetic Benefits
 - Spatial Integration
 - 4.1.3. Public Acceptance Principles
 - Public Involvement
 - Acceptable Cost
 - 4.1.4. Integrative Planning Principles
 - Demand Integration
 - Interdisciplinary Planning
 - Public Perception
- 4.2 Examples of water based design
- 4.3 Conclusions

4.0 INTRODUCTION

The introductory paragraph to this chapter should consider that the reader will most likely have limited knowledge of water based design as should expand on its meaning in greater detail. The introduction will be important in familiarising the reader with a designers mindset prior to beginning a project. This section must also give detail as to why we as designers have principles to guide us throughout the design process and reinforce the importance of design principles. Most importantly, this chapter must provide the reader with a basis to the twelve principles of water sensitive design and planning .

4.1 PRINCIPLES OF WATER BASED DESIGN

The principles of successful water based design are of the utmost importance when designing a space where the designer wishes to most optimise the benefits. Water permeates through our urban landscape and affects every aspect of our environment as humans. In order to best

optimise the long and short term benefits that comes with having water in our surroundings, a set of ‘Coherent Design Principles of Water-sensitive Design and Planning’ has been developed.

This set of principles falls under four sub-categories; functionality and usability, aesthetics, public acceptance, integrative planning. This author will structure this chapter to focus on each of the principle categories as headings, whilst using each of twelve principles as sub-headings. This author will delve into further detail of each sub-heading in the research project. This structure will allow each of the twelve principles to receive proper attention from the reader in an organised manner.

4.1.1 Functionality and Usability Principles

- Water Sensitivity
- Appropriate Design
- Appropriate Maintenance
- Adaptability
- Usability

4.1.2 Aesthetic Principles

- Aesthetic Benefits
- Spatial Integration

4.1.3 Public Acceptance Principles

- Public Involvement
- Acceptable Cost

4.1.4 Integrative Planning Principles

- Demand Integration
- Interdisciplinary Planning
- Public Perception

4.2 EXAMPLES OF WATER BASED DESIGN

This section of the report shall explore examples of precedents where the aforementioned principles have been successfully applied to a design. This author is also contemplating exploring examples where these principles have not been applied, in order to showcase to the reader the contrast between the two. This author will do as such by referring back to the work of Ryan, 2010., ‘Building with Water: Concepts, Typology, Design’. This persuasive technique should therefore get the reader to understand the importance in following the twelve principles whilst carrying out a water-based design. As a successful design should effectively promote a sense of freedom to the user, whilst an unsuccessful design will hinder.

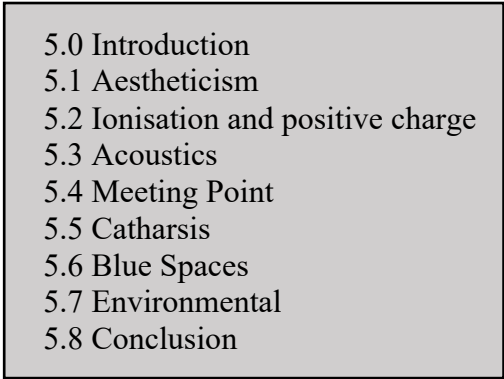
4.3 CONCLUSION

The final section of this chapter will draw attention to the points made throughout the chapter thus far and furthermore maintain to the reader the importance of the twelve water-based design principles. This section will also link the aim of this chapter to the fundamental understanding of ‘Ab Aqua Libertas’. This section will be essential in order to allow the reader to come to their own realisation of the concept at hand.

Chapter 5: Benefits of Water-Based Design

The author will use this chapter to highlight to the reader the benefits having water within a design. The benefits that this chapter will concentrate on will not just include the psychological benefits that water can have on our beings, but also the physical, environmental and sociological benefits that can also be attributed to it.

Accordingly, the structure of this chapter shall be as such:



- 5.0 Introduction
- 5.1 Aestheticism
- 5.2 Ionisation and positive charge
- 5.3 Acoustics
- 5.4 Meeting Point
- 5.5 Catharsis
- 5.6 Blue Spaces
- 5.7 Environmental
- 5.8 Conclusion

5.0 INTRODUCTION

The beginning section of this chapter will provide the reader with a vague overview of the contents of the chapter in order to entice them to continue reading the research project. This section will hint on some of the benefits that shall be discussed without overwhelming the reader with jumble of information or statistics. Finding an appropriate balance to this section will be critical in order to prevent the reader from being overpowered, whilst also retaining an interest in the subject at hand. This author shall use various sources in order to discuss each benefit but shall primarily use ‘Blue’ space: Access to water features can boost city dwellers’ mental health” by Jenny Roe, 2019 and ‘Water + Architecture’ by Charles W, Moore. In order to do this, the author shall discuss each benefit under a subheading.

5.1 AESTHETICISM

This subsection shall inform the reader of water’s aesthetic value in design. The values include its fluidity, transparency and reflectiveness. This subsection must convey to the reader the value of water on a visual level, emphasising the human sense of sight.

5.2 IONISATION AND POSITIVE CHARGE

This subsection will delve into how water’s negative ions can absorb into our systems through proximity. This section shall explain in detail how this stimulating environment boost our serotonin levels, increase the functionality of the human body by increasing the

bodies positive energy. This section will be important in conveying to the reader the chemical benefit of having water within our natural surroundings.

5.3 ACOUSTICS

This subsection will be the first section to dive into the biological benefits of having water within our environments. It will place an emphasis on how water can cause an influx of neurochemicals in the brain to promote relaxation in the form of “white noise”. This paragraph will also emphasise the human sense of sound and how that can be attributed to design.

5.4 MEETING POINT

This passage shall discuss how we as humans are naturally drawn to water and the science behind why we tend to convene around it. This sub section will be necessary in order to sell this concept of Ab Aqua Libertas to the reader as a human need.

5.5 CATHARSIS

This sub section shall discuss the healing and replenishing that comes alongside being near water. Within this paragraph the importance of the remedial aspects of water shall be discussed to the reader. This section shall be responsible in delivering how water can promote freedom within our bodies through physiological means.

5.6 BLUE SPACES

This subsection will argue the health benefits that are to be found with by engaging with blue spaces. This section will consider the physical, mental and emotional advantages that come from being near water. Blue spaces are a vital component in promoting the freedom of the mind and body and are therefore relevant to the ideal in question.

5.7 ENVIRONMENTAL

Having water within spaces also has the numerous environmental benefits such as, providing valuable habitats for wildlife, creating cooler microclimates and storing excess rainfall. This asset is extremely relevant to today’s modern global issues. Therefore, it is also relevant to this research investigation.

5.8 CONCLUSION

The concluding remarks of this chapter will briefly synthesise the preceding arguments and then discuss entirely how each is pertinent to the ideals of Ab Aqua Libertas. This will showcase how they can each promote a sense of freedom in a variety of means.

- **Waters Integration at Manor Mill**

Within this section or ‘Chapter 6’, the reader will be introduced to the research project’s case study, Manor Mill, Clonmel, Co. Tipperary. This is the chapter in which the author discuss how the application water-based research has been applied to the interior design of the mill. In order to best get the reader to found a basis of knowledge about the building prior to acknowledging the applied design principles, for this reason the structure of this chapter will be laid out as follows:



Manor Mill, Stretches Island, Clonmel, Co. Tipperary

6.0 Introduction
6.1 Historical Background of Manor Mill
6.2 Design Intervention at Manor Mill
6.3 Critical Analysis of Manor Mill
6.4 Conclusion

6.0 INTRODUCTION

The beginning section of this chapter will give the reader the basic information of the case study. It will give details such as, the location, function and description of the building in the aims of providing the reader with a foundation of knowledge before continuing onto the next sections.

6.1 HISTORICAL BACKGROUND OF MANOR MILL

This section will use public records from the Tipperary County Council to give the reader and insight into the historical background of the Manor Mill. It will bring the reader through the evolution of the mills journey through time. This section will through the use of visuals, also hint back to the content described in chapter three, in relation to the history and philosophy of the building, but in special reference to how it has affected Clonmel.

6.2 DESIGN INTERVENTION OF MANOR MILL

This section will describe the particular water-based interventions applied to the building, illustrate these interventions and reference back to the design principles listed in chapter four. This chapter will go into detail about the exact interventions that were applied to the design and how it relates back to the research project. This section will be fundamental in applying theory to practice.

6.3 CRITICAL ANALYSIS OF MANOR MILL

Within this section this author will critically analyse how the interventions of Manor Mill have been applied and whether or not they are successful in their intent. This author will use this case study to compare to international best practice and precedent works where water based interventions have been effective. This chapter will be critical in being able to critique design work happening domestically to designs occurring internationally and line up the reader for the recommendations that will follow in the concluding chapter to come.

6.4 CONCLUSION

The final section will discuss the success of the water based intervention at Manor Mill. It will also critique the effectiveness of the design and whether or not the benefits outweigh the drawbacks. The conclusion will also explain to the reader how ‘ab aqua libertas’ is relevant to the case study. The conclusion will also offer the reader an ending to the thematic chapters before continuing on to the overall conclusions and recommendations.

This chapter will be crucial in getting the reader to understand how these aforementioned principles can be applied to real life scenarios.

- **Conclusions and Recommendations**

The final chapter of the research project will offer the reader concluding remarks and recommendations to both the design industry and also to further research. This section will be imperative in allowing the reader to recognise gaps in the literature and research that this author has found. The structure of the concluding chapter will read as follows.

7.0 Introduction 7.1 Conclusions 7.2 Recommendations to Industry 7.3 Recommendations to Further Research 7.4 Conclusion
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This structure will cohesively link all of the attributes required of the conclusion in a coherent way.

7.0 INTRODUCTION

The introductory section to the concluding chapter will allow the reader to become acquainted with the reflections and recommendations that will take place throughout the coming chapter. This section will ease the reader into the closing chapter of this research project.

7.1 CONCLUSIONS

This next section will make concluding remarks about ‘ab aqua libertas’, and how it can be perceived. Within this section the author will state her overall findings from having carried out the research through the literature. This section will also discuss the usefulness of having conducted surveys and interviews relevant to the topic with professionals in the industry. It will also offer concluding remarks to each of the thematic chapters and case study. This chapter will be so important in fully relating the relevance of water-based design back to the reader prior to continuing onto recommendations.

7.2 RECOMMENDATIONS TO INDUSTRY

The recommendations to industry section will be broken down into the relevant factions within the industry, i.e. designers, educators, etc. This section will be vital in recognising the lack of application being considered in Ireland and in doing this the author will compare such examples to international best practice.

7.3 RECOMMENDATIONS TO FURTHER RESEARCH

The recommendations to further research section will be vital in recognising the gaps in the literature and advising researchers on where further research could be developed. This section will also mention the tools that could be developed in order to practice ‘Ab Aqua Libertas’, more effectively.

7.4 CONCLUSION

The closing remarks of this chapter will synthesise the contents of the overall chapter, including the recommendations to both industry and research and also how this research investigation can be proven to have worked effectively. Finally, the author shall stress the importance of ‘Ab Aqua Libertas’ with the reader and how we recognise it and its benefits within our environment.

This chapter will essentially tie together all of the aforementioned, investigative content and furthermore cement the ideals of water-based design to the literary audience.

Overall the author argues that this structure for the research project will be the most beneficial in allowing the reader to fully comprehend the concept of ‘Ab Aqua Libertas’. This author is also of the belief that the thematic choices proposed are the most relevant in defending that water can create freedom through design in a variety of aspects. Throughout this argument the author has asserted the importance of the history and philosophy of design, the design based principles surrounding water-based design and the benefits that can come from it. This author also stands behind water being a crucial natural element that should be considered in design more. Throughout the next semester this author shall gather more information and research and start applying the proposed principles of the research investigation into practice.

Bibliography:

Moore, 1994., “Water + Architecture” by Charles W, Moore, Harry N. Abrams.

Ryan, 2010., “Building with Water: Concepts, Typology, Design” by Zoë Ryan, Birkhäuser

Kundanika, 2019., “Aqua Architecture-Water the spirit of Architecture” by Adukuloo Kundanika

Available at https://issuu.com/kundanikaadkuloo/docs/aqua_architecture_-_4th_yr_dissertation_project_fi

Salama, 2022., “Towards developing sustainable design standards for waterfront open spaces” by Shery William Salama

Available at <https://cityterritoryarchitecture.springeropen.com/articles/10.1186/s40410-022-00172-3>

Municipality of Amsterdam, 2012., “The Development of IJburg’s Waterbuurt”

Available at https://www.ansa.it/documents/1334931625986_AmsterdamFloating.pdf

Moon, 2015., “A Study on the Floating House for New Resilient Living” by Changho Moon

Available at <https://koreascience.kr/article/JAKO201533678768011.pdf>

Barker, 2021., “Amphibious Construction” by Robert Barker

Available at https://www.designingbuildings.co.uk/wiki/Amphibious_Construction

CLIMA, 2023 ., “Floating and amphibious housing”

Available at <https://climate-adapt.eea.europa.eu/en/metadata/adaptation-options/floating-and-amphibious-housing>

Miller, 2023., “Water features as design elements: How architects are Utilizing water in Contemporary Buildings” by Lilly Miller

Available at <https://amazingarchitecture.com/articles/water-features-as-design-elements-how-architects-are-utilizing-water-in-contemporary-buildings>

Coherean, 2020., “Principles of Water Sensitive Design and Planning”

Available at <https://coherean.com/?p=736>

Roe, 2019., “ ‘Blue’ space: Access to water features can boost city dwellers’ mental health” by Jenny Roe

Available at <https://theconversation.com/blue-space-access-to-water-features-can-boost-city-dwellers-mental-health-122995>