DESIGN PATTERNS IN ARCHITECTURE: TOWARDS A PROPOSED
GRAPHIC INSTRUMENT TO ASSIST DESIGNERS

A DISSERTATION SUBMITTED TO THE FACULTY OF ENGINEERING, THE BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY
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PREFACE

Firstly, my sincere gratitude is expressed to Professor Hans Wegelin who, as my mentor and leader helped me constantly to keep focus and stay true to the aim of this study. Thank you also for:

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Working with computers has its advantages and disadvantages, and so is living in Africa. Great was the distress when the (previous) computer was stolen on the 1st of February 2000 with all the files on hard disk also gone and no back up files.

Sometimes setbacks can make one more determined and thankfully there is also clever software that can convert text from copies to word processing format!

Lastly I want to thank my dear wife, Esther and my children, Kirsten, Nadia and Gisela for their support, great encouragement, love and sacrifice and for really understanding.

This study is dedicated to God, my heavenly Father who guided me.
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12 ABSTRACT

Design Patterns in Architecture:
Towards A Proposed Graphic Instrument to Assist Designers
By
Stephanus Mauritz Kruger

Leader: Prof Hans Wegelin
Department of Architecture.
Degree: Master of Architecture.

In this study the following is examined:
• Firstly, how to develop an appropriate design tool for architects by graphically exploring, analysing and organising architectural design patterns.

And further how graphics can be used to illustrate design, how computer graphics and the computer can be utilized as an instrument for storing and retrieving design data in terms of software and web sites applications.

By also investigating the design process, specifically the creative process, and the possibility of implementing the following pattern-types in a web-site: design principles, social preferences and architectural language.

12 EKSERP

Patrone van Ontwerp in Argitektuur:
‘n Voorgestelde Graﬁese Instrument om Ontwerpers van hulp te wees
Deur
Stephanus Mauritz Kruger

Leier: Prof Hans Wegelin
Departement Argitektuur.
Graad: Magister in Argitektuur.

In hierdie studie word die volgende ondersoek:
• Eerstens, hoe om ‘n toepaslike ontwerp instrument te ontwikkell vir argitekte deur die graﬁese ondersoek, ontleding en organisering van argitektoniese ontwerp patronie.

Om verder te ondersoek hoe ontwerp grafies voorgestel kan word, rekenaar grafika en die rekenaar gebruik kan word as ‘n instrument om ontwerp-data te stoor en te bewerk in terme van sagteware en webbladsye.

• Tweedens, om ‘n manier te vind om patrone te implementeer in ‘n maklik bruikbare instrument, in die ontwerp proses in die praktyk.

Om verder ook die proses van ontwerp, spesifiek die kreatiewe deel daarvan te ondersoek, en die moontlikheid om in webblaai die volgende patroon-tipes te implementeer: ontwerp beginsels, sosiale voorkeure en argitektoniese taalgebruik.