CHAPTER 1   INTRODUCTION

1.1   INTRODUCTION

The Ionic capital was an integral part of monumentalised Hellenic art and architecture, and has remained vital as a cultural symbol up to the present time. This study is concerned with the construction of a data base of Archaic Ionic capitals, with ordering data in terms of time and place, with gaining typological understanding of the early Ionic capital within its chronologically and geographically bounded built and artistic context, as well as understanding the form evolution of the capital from its pioneering to its foundational first generation phase, together providing critical elements for future construction of a founding theory for the Ionic capital and more comprehensive understanding of Archaic Ionic art and architecture.

1.2   THE IMPORTANCE OF THE STUDY

The importance of further research regarding the Ionic capital is related to the relevance of increased knowledge of the embryonic stage of Hellenic architecture. Hellenic architecture has been and is widely seen as an important foundation of the Western architectural tradition. The Modernist view of Classical architecture required that any direct reference to historical precedent was avoided in principle. Whilst tradition in architecture was eschewed, a dichotomous situation existed where certain Classical design principles, typologies and space-time sequences were covertly admired and utilised, and the Classical Orders (Doric in particular) were viewed as ready and authoritative etiology for functional form-making based on a structural rationale (as in the early writings of Le Corbusier (1985 [1923], p.45, 204), as well as currently by such Neo-modernists as Meier (See discussion in Jencks (1991, p.245)). This situation precluded a realistic, contextually based assessment of the values inherent in Classical architecture. In any questioning or re-reading of those values it remains important that there is acknowledgement of new advances in understanding of the tenets of Classical architecture and particularly its beginnings.

Important facets of the Postmodern architectural break with and opposition to Modernism are that tradition is acknowledged as an important cornerstone of the continuous process of architectural reinvention, and that the total architectural historical attainment is reinstated as a field of architectural reference (A view put by such Postmodern architects as Venturi (1977, p.14), the instigators of the First International Exhibition of Architecture at the Venice Biennale in 1980, and also recently by the Classicist Porphyrios (1991, p.85-100). The fact that this break can be traced to the later work of Le Corbusier is one of the more meaningful, albeit ironic, footnotes of architectural history.

Re-evaluation of the founding phase the Classical Orders and its meaning became pertinent in the Classicist Revivalist grouping emerging under the banner of the re-connection with history made possible by a Post-

Modern approach to architecture. Because the Archaic phase of Hellenic architecture (seen as the embryonic stage of our cultural heritage) reflects a conscious attempt at concretising a shared dialectic paradigm by means of a process of reinvention and abstract monumentalisation of traditional values within a changing paradigmatic context, it has particular significance to our time, which faces a similar condition. Historically probable knowledge of the process by which the Classical Orders were founded and also encoded with meaning will make a great contribution to the Postmodern yearning for creating meaningful architectures.

There are problems concerning the knowledge base from which this re-utilisation of Classical values proceeds. Architectural-historical works by Kostof (1985), Martin (1988) and Norberg-Schulz (1980) show that current research and insights into concrete and abstract aspects of the founding and monumentalising stage of Hellenic architecture in the Archaic era are not adequately reflected. Works emerging from a more neo-Classist category of inquiry include the synoptic inquiry into Classisism by Greenhalgh (1990), the incisive ontological interpretation of the Classisist viewpoint by Porphyrios (1991), the philosophically inclined tome regarding the beginnings of the Orders by McEwen (1993) and the semantic interpretation of the Ordered column by Rykwert (1996). Again, there is either no or not adequate recognition and inclusion of the evolution of understanding of the emergence of the Orders, emanating from current research by the archaeological fraternity. There is little or no new realistic insight into the beginnings of the Orders, and the works rather serve to lead us away from the results of newer archaeological interpretation. Predominantly, in Postmodern literature, the morphology and syntax of Classical-Hellenic and later developments from that architecture (especially Mannerist) are put forward as inspiration for abstract-eclectical architectural semantics. (See Jencks (1981, p.5) and Rowe (1987, p.185-90)). The proposed Postmodern goal of introducing relevant meaning into architecture by means of abstract-eclectisism has not reached a satisfactory level of depth, clarity and 'fit' with the context of the current post-Newtonian paradigm. With Greenhalgh (1990, p.63) one may say that stylistic utilisation of Classical morphology without an understanding of the relevant syntax, actually impeded the formation of a currently meaningful referential architecture.

To understand the architecture of the Orders' founding era an architectural re-evaluation of their monumentalising phase is required, but re-evaluation departing from more fundamentally concrete assessments of the events. The realisation that the founding of the Orders are intimately intertwined with other Minor Arts should also be incorporated in the architectural perspective. Untrammelled by the fluctuations in architectural attention towards Classical architecture, the archaeological fraternity has steadily chiselled away at such concrete assessments, and in acknowledging the design interaction between art and architecture. The massive works by Jacob-Felsch (1969) and Wesenberg (1971) on column bases remain prominent in any current analyses. There has been a re-evaluation of the validity of Vitruvian interpretation of the origins of the Orders by Wesenberg (1996). After the valuable earlier works on Hellenic architectural syntax like that of Coulton (1975), much work has been done on the Hellenic approach to architectural design and to metrology (by Wesenberg (1983a,b), Hoepfner (1983), Schwandner (1983), Bankel (1983; 1984) and

Koenigs (1985; 1993)). We have seen the tomes on early Doric architecture by Howe (1985; Hereafter IDO) and Beyer (1972), both of which broke new conceptual barriers but may be criticised from various viewpoints.

An abundance of archaeological evidence about examples from the founding phase of the Hellenic Orders has lately become available. Detailed archaeological knowledge of Geometric and the earlier Archaic Ionic building works has increased rapidly from research and colloquiums during the last decade (too numerous to mention here). There is record of many more Ionic buildings, and many historically vexing examples (like the Naxian *Oikos* at Delos, the Hekatompedos and First Dipteros at Samos, the Archaic Artemision and Didymeion) now appear more sharply defined. Gruben's (1963) work on Ionic column slenderness ratio's has recently been revised by himself (1996, Fig.17-8), and he (1991; 1997) and Ohnesorg (1993a) have cleared up many remaining issues regarding Archaic Cycladic architecture.

A critical assessment of existing studies of the meaning and origins of the Ionic Order and/or capital by, amongst others, Alzinger (1972-3), Andrae (1933), Braun-Vogelstein (1920), Dinsmoor (1973 [1927]), Durm (1910), Fletcher (1975 [1896], Guhl (in his *Versuch über das Ionische Kapitäl* of 1845, as cited in Braun-Vogelstein [1920, p.2-3, Note 1, 6]), Hersey (1989), Hittorf (in his *Recueil des Monuments de Ségeste et de Sélinonte* of 1870, as cited in Braun-Vogelstein [1920, p.3-4, Note 7]), Lehmann-Haupt (1913), Palladio (1965 [1570]), Penrose (1902), Przyluski (1936), Puchstein (1887), Von Luschan (1912), Wurz and Wurz (1925) and Vitruvius (1955 [50 BC]), showed that the founding theories are inadequate due to incomplete databases, unreliable dating methods or the acceptance of spurious dating of artifacts and the constraints of non-contextual description and/or interpretation. Even though a contextual approach towards the architectural achievement of the Hellenic era has emerged (Amongst others in the works of Berve and Gruben (1961), Betancourt (1977), Boardman (1967), Coulton (1975; 1976; 1977), Doxiades (1972 [1937]), Drerup (1969), Howe (IDO), Kostof (1985), Mallwitz (1981), Maré and Rapanos (1984), Martienssen (1964 [1956]), Martin (1965; 1988 [1980]), Martini (1986), Norberg-Schulz (1980 [1974]), Porphyrios (1991) and Scully (1979 [1962])), it remains true that there is no comprehensive contextual definition of the Ionic Order.

As yet, no definition of Ionic architecture exists which completely satisfies the vexing question surrounding the founding of the Ionic Order, namely whether it should be seen as innovation in stone, as skeuomorph stone imitation of timber antecedents or as imitation of existing non-architectural artifacts or architectural styles, and which clarifies the issue as to whether the Ionic capital itself should be seen as an innovation, evolution or as a skeuomorphic imitation of previously existing architectural or artistic elements.

Mace (1978) was the first to study a collection of specifically Archaic Ionic capitals as a formal type and from a comparative point of view. Although his study included aspects of the built context of the capitals and brought insight in terms of the morphological qualities of a group of capitals, his typological analysis and critical remarks regarding the founding history were inconclusive due to the small sample, problems with the

chronology and other methodological problems. More recently, Theodorescu (1980; Hereafter LCIG) and Kirchhoff (1988; Hereafter EIV) managed to bring a wide scope and detailed analysis which furthered insight tremendously, and whose founding histories demand serious attention. Unfortunately deficiencies in terms of method and *lacunae* in terms of data, which are dealt with in this study in great detail, also resulted in inadequacies. The insight into the Ionic capital gained by both Theodorescu (LCIG) and Kirchhoff (LCIG) is further diminished by the lack of inclusion in their analyses of the built context in which the capitals appear. Also, recent research has removed many of the examples employed by Kirchhoff as first actors in his founding narrative. Most of these mentioned deficiencies are taken up in the present study. After Hoepfner (1968) there has been renewed attention to the design of the systemised Hellenistic Ionic volute by Wesenberg (1983a), Büsing (1987) and Frey (1992) which demands a new perspective on earlier capitals.

This study attempts to bring insight into the Archaic Ionic capital, and in particular the earliest pioneering and foundational capitals up to 525 BC, by broadening the scope of the current data base, through enhancement of current typological inquiry, and through acknowledgement of the built context for which they were designed and manufactured. This is seen as a necessary prerequisite for combination with insights with respect to related artifacts for the formulation of a comprehensive founding history of the Ionic capital (and eventually the architecture and art in which it appeared) which explains the design evolution and the degree of 'fit' between the paradigmatic context and element.

1.3   THE STATEMENT OF THE PROBLEM

There is a need for a comprehensive *corpus* of early Ionic capitals suitable for the construction of a probable founding history.

1.4   THE MAIN HYPOTHESIS

Future construction of a probable founding history of the Ionic capital can only come from an understanding of its form evolution, based on a typological understanding of the artefact in its built context, and as emanating from an ordered data base.

1.5   THE SUB PROBLEMS

Sub problem 1   To describe and chronologically and geographically order relevant artifacts of the Archaic Ionic Order, Ionic votive column and their pre-forms.

Sub problem 2   To gain typological understanding of an ordered data base of relevant artifacts.

Sub problem 3   To describe the process of form-making during the founding process and to isolate those remaining aspects necessary for the construction of a probable founding narrative for the

early Ionic capital.

1.6 THE HYPOTHESES

Hypothesis 1   Current data regarding a *corpus* of early Ionic capitals can be increased and augmented.

Hypothesis 2   Interpretation of a *corpus* of early Ionic capitals from a typological perspective will alter and increase current interpretation.

Hypothesis 3   Discernment of significant elements of the achieved ordering and analysis of the early Ionic capital and related artifacts will provide a more suitable basis for a future formulation of a probable founding narrative for the early Ionic capital.

1.7 THE APPROACH

This study requires an appropriate description and ordering of relevant artifacts from an identified relevant and representative archaeological record. In encountering the artefact, there is in this study primarily a realisation of its functional nature.

Most of the artifacts used, exist as reconstructions. The author does not rely on the primary sources for the description and analysis (with known exclusions). The secondary sources exist as text, but text which is not intended as a mere translation of or substitute to the artifacts, but rather a decoding from a base of knowledge and insight of aspects that are not to be read from mere sensory confrontation of the works, of the aspects that are hidden due to the nature of the process of their coming into being, and also of aspects that are not available for discovery because the artifacts have been decontextualised or the context has disappeared and exists mainly in texts from various scholarly disciplines. In this study the text is seen as additive to and supportive of the artifacts rather than in opposition to them, and written text is combined with drawings, diagrams, quantitative description and photographs to facilitate and enable multi-dimensional understanding.

It is required that, in the description of Archaic Ionic capitals and the monuments and architecture they form part of, as well as in the chronological, geographical and typological ordering of the capitals, there be an endeavour to integrate, augment and synthesise existing work in the field. Furthermore, the compilation of a data base should be comprehensive in its nature and its formulation, and be able to accommodate changes emanating from future archaeological interpretation, in order that it may incorporate feedback and may be used as an open-ended interpretive tool for further research.

Part of the approach to the subject is the disclosure of the nature of design process inherent to the formation of the Ionic capital and its stylistic content.

1.8 DEFINITION OF TERMS

1.8.1 *'Corpus'* refers to a body of existing and newly acquired thought which in this instance includes understanding on a typological level and within a described context.

1.8.2 'early Ionic capitals' refers to related capitals preceding the founding of the stone, Ionic 'standard' capital, as well as to related capitals following the datum, all within the Hellenic Geometric and Archaic periods. In this study a cut-off date of 489 BC is employed for purposes of constructing a representative data base and for chronologically based analyses, and 525 BC for chronologically and geographically based analyses.

1.8.3 'Ionic' has reference to: The Ionian cultural grouping; Any non-architectural artifacts that, through an interpretation of stylistic and regional attributes, are classified as being typical of that cultural enclave (For example an Ionic votive column); Any architectural interaction of forms that are viewed as being typical of the Ionian cultural enclave (For example the Massilian Treasury of Delphi or the First Dipteros of Samos) as well as experimental or non-canonical forms which are part of such interactions (For example the spira and torus base); The specific stylistic interrelationship of elements which as a whole is known as the canonic Ionic Order (For example the façade of the Athenaion, Priene) as well as the separate constituent elements (canonic Ionic base, column, etc).

1.8.4 'Ionic standard capital' refers to an artefact whose attributes include, at least, a horizontal element (*canalis*) which has depth [ie not flat like metal] and from which a volute descends on either side, and where that combination of elements occurs on top of a smooth or profiled egg- or leaf cyma echinus of various sections. 'Ionic non-standard capital' refers to timber and stone precursors of the Ionic standard capital which exists without echinus. 'Ionic column' refers to the combination of at least a column base, fluted or unfluted column shaft and Ionic non-standard or standard capital. 'Ionic Order' refers to combination of a stone or timber version of an Ionic column and rudimentary entablature (as minimum an architrave, frieze panel and cornice).

1.8.5 'Founding' refers to the process of coming into being of the Ionic standard capital and the subsequent foundational or formalising phase of the design and its application during a founding era. 'Founding era' refers to the time span during which the Ionic standard capital came into being, namely the build-up to the datum point, the datum, and following phases of interim forms through to its eventual canonical form. 'Founding context' in this study refers only to the artifacts 'Ionic architecture' and 'Ionic votive column' in which the 'Ionic capital' occurs. Other levels of context are excluded. 'Founding history' refers to a narrative in which a probable founding process is related which is supported by the effluent from archaeological endeavour.

1.8.6 The term 'votive column' rather than 'memorial column' is used to more accurately express its proper role in the specific cultural enclave (This term follows the nomenclature used in current study).

1.8.7 'Skeuomorph' refers to an artefact for which the technique of manufacture of a prototypic artefact is employed as source of styling, and the artefact is a mimic of the original (Steadman, 1979, p.112).

In this study there is reference to the possible mimicking of the detail of timber construction into stone, a process also known as 'xylolythic conversion', with such a stone element then being known as 'xylolythic skeuomorph' of the original timber prototype.

1.9 ASSUMPTIONS

1.9.1 Multidisciplinary inquiry is possible, valid and useful.

1.9.2 The study departs is approached within the discipline of architecture, and offered as an architectural artifact. In this study there is a realisation of the chasm that exists between current archaeological and architectural involvement and understanding of the field, and that the approach chosen should make that understanding more accessible to the practising architectural fraternity and for architectural pedagogy.

1.9.3 The author accepts the level of accuracy of secondary description of artifacts, in terms of their material, provenance, function and date of manufacture as being resultant from specialist archaeological knowledge and analyses. Whilst the author remains critical of the accuracy of such description and analyses, their accuracy remains a reflection on the science of archaeology rather than the knowledge of the user. It is accepted that, from an achieved understanding of the artifacts and their context, the author has a responsibility to be critical of those datings of Ionic capitals achieved by others, and to engage in such activity where required.

1.9.4 All capitals used by Kirchhoff (EIV) and Theodorescu (LCIG) which are deemed relevant may be included in the present study.

1.9.4 In a few instances, where the need existed and the possibility presented itself, the author has engaged in description and documentation of artifacts. Due to a lack of permission for the type of access to artifacts required for proper documentation, the description does not fully conform to the demands posed by the science of archaeology. The lesser validity of these documentations is indicated where applicable, and is acknowledged in all manipulations of such data. There is however a preliminary assumption that exclusion of such artifacts will reduce the possibility of a more comprehensive view.

1.9.5 It is accepted and deemed necessary that any conclusions come to in this study be reviewed and tested from an archaeological viewpoint.

1.10 DELIMITATIONS

1.10.1 Due to understandable reasons research in this field of study is specialised in nature and specifically focussed. Any participant should therefore be aware of its demands. As an architect the author is also aware of certain limitations in crossing the historically delineated professional boundaries which are still clearly delineated in this field. The author is not at liberty to be intimately involved in the physical realities of the sites that are involved in the field of study, and is removed from the collegially bound

network of foundational ideas, critical interrelationships and responses and often unspoken acceptances which accompany the evolving semantic understanding of the totality of the sites and their components. This study of necessity has to rely on secondary source material, which are deemed to be the fruits of the labours of the archaeological profession. Dating of artifacts other than Ionic capitals cannot be expected from the author: Where single datings are the case, these have to be accepted, but multiple and/or conflicting datings will be critically viewed. Whilst the secondary sources are viewed in a critical sense and responsibility is accepted for their employment, they are viewed and used from an architectural perspective.

1.10.2 Analysis of the founding era includes determining the relationship between Archaic Ionic capitals and the later achievement of a Classical canonic version of the Ionic capital. However, no re-examination of Classical capitals before and up to that canonic version is undertaken.

1.10.3 Although analysis of the typological evolution of the Archaic Ionic capital, in terms of manipulation of chronologically ordered data, is addressed for the whole Archaic period, this analysis, in terms of geographically ordered data, is restricted to a certain time-span deemed suitable for the purposes of this study. Whilst there is detailed description of the Archaic Ionic capital not necessarily employed in any arguments in the study, such description is deemed as being a responsible act in terms of a conservation paradigm. As residue of the study they are provided as tool for future access to and manipulation of the artifacts.

1.11 REFERENCE SYSTEM AND MEASURE CONVENTION

The University of Pretoria requires that theses employ the Harvard reference system and the ISO measure convention (Millimetres are used throughout, for example 5,20 metres is written as 5 200; 52 centimetres is written as 520; 5,20 centimetres is written as 52). These will be followed throughout this thesis.

1.12 THE STRUCTURE OF THE STUDY

Chapter 2 involves the compilation of a representative data base which results in a documentation of relevant capitals and their built contexts, and a base from which further analysis can proceed. The criteria for an a representative and ordered data base of relevant capitals and buildings is formulated, the data base is compiled and ordered chronologically and geographically. The problematic of at a future stage bringing the data base into relation with other artifacts is inquired into.

In Chapter 3 there is a typological analysis of the Archaic Ionic capital, based on the achieved ordered data base, and emanating from an understanding of the tectonic content of the artefact.

Chapter 4 deals with the construction of an evolutionary narrative of the form synthesis included in the early

Archaic Ionic capitals up to 525 BC, together with a critical framework for a future construction of a founding history of the Ionic capital.

Chapter 5 provides a recapitulation of the achievement included in the work, concluding remarks, and recommendations for application of the work as well as further research that may follow on or that is suggested from the study.

In Addendum 1 a quantitative and qualitative description of all Archaic Ionic capitals up to 489 BC and of Ionic buildings up to 525 BC is provided in spreadsheet format, together with data of relationships between elements of the capitals and buildings.

In Addendum 2 there is illustration of quantitative and qualitative aspects of the Archaic Ionic capitals.