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**A Social Archaeological Examination of Power
as reflected in the Boyne Valley Megalithic Passage-graves
in the Irish Neolithic, 4000 - 2000 B.C.E.**

by

Liam B. Kilmurray

**A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfillment of
the requirements for the degree of
Master of Arts**

Department of Sociology and Anthropology

**Carleton University
Ottawa, Ontario
April 29, 1997**

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A Social Archaeological Examination of Power
as reflected in the Boyne Valley Megalithic Passage-graves
in the Irish Neolithic, 4000 - 2000 B.C.E.

submitted by Liam B. Kilmurray, B.A.
in partial fulfilment of the requirements for
the degree of Master of Arts

Derek G. Smith, Supervisor

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May 12, 1997

ABSTRACT

The role of megalithic passage-graves in the Irish Neolithic is highly debatable, with the question of whether they reveal power structures the most controversial. However, if we are to understand the social structure of the passage-grave complex in the Boyne Valley, how it functioned and the part played by these megalithic structures, we must attempt to analyze their spatial dimensions as representations of power structures and ideology. A social archaeological approach to interpreting symbolic space leads to the conclusion that the Boyne Valley passage-graves were the result of a voluntary communal cooperation whose impetus was the increasing social centralization due to the introduction of cereal cultivation in the Irish Neolithic. The passage-grave was a social nexus which objectified these new relationships in its spatial dimensions and perpetuated these power structures by aligning the passage-graves with the astrological, funerary and religious beliefs of the community.

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This thesis is dedicated to Proinsias MacGiollaMhuire

I Gallán Is Cuimhin Linn

(In Standing Stones We Remember)

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Map 1

from M.J. O'Kelly *Early Ireland*
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Foreword

On a visit to the Boyne Valley passage-grave¹ of Newgrange, Co. Meath, in 1993, I discussed the peculiar indentations in the stone basin in the recess of the tomb with the local tour-guide (a student from University College Dublin). Years before, I had written that these indentations resembled modern soap-holding grooves. Their 'purpose', if any, has been discussed at length by various scholars. Herity (1974:123-124) stated: "It is clear that they were meant to play an important part in the burial ritual". He goes on to describe their function, suggesting that "the cremated bones might have been placed in [them] during a burial ceremony". Brennan (1980) speculated that if the capstone from the corbelled roof was removed and the lunar light allowed to penetrate the recess, then these 'indentations', when filled with water, would reflect the stars and various astronomical patterns on the walls of the inner tomb. It was while walking away from the great megalith that my spouse suggested another theory. The overall appearance of the stone basin might suggest the female body viewed from the inside, with the curve of the basin representing the womb and the two indentations, the breasts. This might have been intended to represent the foetal perspective or the return of ashes to their place of origin. This, female, perspective on the representation of space, although still denoting a ritual function during burial ceremonies, serves to underline the shaky

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¹The nomenclature applied to these structures differs from author to author. Variants include "passage grave", "passage-grave", "passage tomb", "passage-tomb". Although I would prefer the term "passage centre" to avoid strictly funerary associations, I have used "passage-grave" for general consistency with other works.

ground upon which interpretations of space and its functions rest. The expectation, from by and large a male perspective, that breasts will manifest themselves as protrusions into space, is revealed as culturally specific and gender-particular. If this is the case for two little indentations into one stone basin, the entire construction, and its use and representation of space, can likewise be amenable to a wide variety of interpretations.

Viewing passage-graves and other megalithic structures in person dramatically affects one's perception of them (see Plate 1). Usually they are located in rural areas and dominate the landscape there. Whether this rural predominance is indicative of the destruction of those megaliths that once might have occupied modern urban centres, or indicates a very different preference for settlement locations in subsequent millennia, is a question worth future consideration. In the open country they are striking examples of human power, of sheer physical determination and ingenuity. Standing solidly for thousands of years, their presence on the landscape is a comforting and beautiful reminder, an inspirational and magical testament to the will and skill of Neolithic society. If we can overlay these modern interpretations with the world-view of Neolithic people, then we might come closer to appreciating what they signified to the men and women of the Boyne Valley some fifty-three centuries ago. Such an interpretation might do more to dispose of their frequent relegation to the status of tombs and copper trading posts, or nostalgic recreations of central European longhouses than volumes of carefully contrived argument could hope to do. Then, we can analyze their every nook, corner, and cranny, as if they were in fact the Rosetta Stone of the Irish Neolithic.

Plate 1

(Photograph: L. Kilmurray)

Introduction

In the fourth millennium B.C.E.², when the first megalithic monuments were being constructed in Ireland, the Sumerians were operating schools in urban centres such as Uruk, Nineveh and Eridu, where the lessons of the early school teachers have been preserved on clay tablets (Kramer 1981). In Syro-Palestine, long-distance trade, walled towns and a Chalcolithic technology, employing unalloyed copper³, prevailed. Small agricultural settlements had been known in that part of the world since approximately 7500 B.C.E. at sites such as Jericho and Mureybet (Wenke 1990:321). In the fourth millennium B.C.E. the Neolithic was coming to a close in southwest Asia, as societies there, inheritors of the 'Neolithic Revolution' and its profusion of crafting, specialization, farming and animal husbandry, were beginning to experiment with ores and pyrites (Childe 1956:89). The Early Bronze age was beginning.

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²Dates in this thesis are listed as B.C.E., Before Christian Era, and are taken from each individual archaeologist.

³ The Chalcolithic stage is defined by the use of unalloyed copper and thus is an intermediate phase between the Stone Age and the Bronze Age. A concise description of the difference between Chalcolithic technology and later tin-copper alloys is to be found in Childe 1956: 89-91.

In Western Europe, by contrast, the diffusion of horticultural and agricultural⁴ ideas and techniques, and local innovations, were just beginning to take hold. While much is known of Neolithic societies in other parts of the world, less is known about the Neolithic in Western Europe and Ireland. Although fragmented, the available information concerning the material equipment of Irish Neolithic populations indicates self-sufficiency and creativity. In their tool kits could be counted axes, hammers, a system of measurement and both microlithic and broad-bladed arrowheads and spears. The use of fire, corbelled arches and three-dimensional art also paint an image of technological and artistic creativity. They possessed a distinctive local pottery tradition, called Carrowkeel Ware (Herity 1974:138)⁵, were comfortable working with rock and stone, and practiced successful agriculture⁶ and hunting.

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⁴Horticulture refers to the cultivation of fruits, vegetables and flowers, whereas agriculture denotes cultivating the soil, producing crops and raising livestock. The main differences then between late Mesolithic and early Neolithic subsistence rounds are (a) intensity and (b) livestock.

⁵This is the standard Irish passage-grave pottery, found in dozens of sites. Characteristic are the coarse and heavy-gritted hemispheric bowls that are decorated with the stab and drag technique on the outside and on the lip, with similar motifs to those on the passage-graves (Herity 1974:138-144).

⁶Skeletal remains from domesticates are rare in Neolithic contexts, however Herity states: "It is difficult, in the absence of quantities of midden material, to estimate the relative proportions of crop-raising to animal husbandry, but one finds it hard to imagine the prehistoric inhabitants at least of Meath not taking advantage of the excellent quality of its cattle land to sustain the large numbers of people in their communities" (Herity 1974:1970).

The period usually studied in the Boyne Valley is the fourth to the second millennium B.C.E. Yet despite the length of such a period, it is but one of the contexts of the Boyne Valley. In focusing on one particular time-frame, archaeological reports inherently depict past peoples as static and gone. Historical precedence and continuity yield to the period under study and invariably relegate what came before and what passed after. This, it will be shown, detracts from an overall image of a given people or a given landscape, and although the period under scrutiny here is also demarcated, i.e. four to two thousand B.C.E., it is necessary to briefly examine the Boyne Valley and its people through history in an attempt to recognize what the *Annales* school terms *L'Histoire de la longue durée* (Bintliff 1992). This calls for an historical locating and a holistic approach to studies of the past.

The traditional emphasis on great men and battles must yield to the trends of population demography, the analysis of class structure, patterns of diet and health (Bintliff 1992:5-6).

Five centuries (Herity 1974:153) before the start of megalithic building, the Valley played host to hunter-gatherers, its rivers, hills, and lush plains would have attracted game, and people. After the demise of the passage-grave building tradition, the Valley and its megaliths continued to play an important role in the physical and cultural landscape of County Meath, known in Ireland as the "Royal County". Glyn Daniel recognizes the continuance of the Meath population when he states that they "were and are" an important element in Irish history (Daniel and O'Riordain 1964:153).

At the beginning of the second millennium B.C.E., the so-called Beaker folk, named after their distinctive beaker pottery (Somerset-Fry, P.&F., 1988:8) squatted and built lean-tos around the mounds of Newgrange and Knowth, among other places in the Boyne Valley (O'Kelly 1981:24-25). That they did not penetrate the tombs themselves is deduced from the absence of their pottery within the constructions proper (O'Kelly 1982:25). Around the third century A.D., Roman coins appear in and around the mound of Newgrange, apparently votive offerings (O'Kelly 1982:48; Daniel 1964:35; Laing 1990:157). Whether these were placed there by Roman travellers or brought back by traders from the Boyne Valley is open to speculation. It is interesting to note, however, that to date no major votive hoards similar to those of Neolithic Britain (Bradley 1990) have been reported from Ireland.

In the fourth century A.D., the Boyne Valley was 'chosen' as the capital of Celtic Ireland, where the 4 great *bothars* (roads) met. Adjacent to the site of the Mound of the Hostages (one of the last passage-graves built in the Boyne Valley, circa 2000-1800 B.C.E.), the 'Great-Hall' of Tara was erected (Daniel 1964:97-8). Once again the Boyne Valley was at the centre of political life, and once again its fertile land fed the local community. The Celts wove their mythologies around the Boyne Valley, where, at Newgrange⁷ (Plate 1), the Dagda and

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⁷Some scholars believe that Newgrange is a corruption of the Gaelic words *an Uamh Greine*, the cave of Grainne, a mythological figure who travelled Ireland and threw stones from her apron to make shelter for the night (Daniel 1964:16). Newgrange has also been translated as *an Grian Uaigh*, the cave of the sun (Herity 1974:13). It is also known as *Bru/Brugh na Boinne*, meaning "House or Mansion of the Boyne". It is of interest to note that the passage-grave called *Barclodiad y Gawres* in

Oengus, the Sun God, and his son, were reported to have been interred . Various other stories were woven around this and other passage-graves, and they signal the importance of the Valley to Celtic Ireland.

One should note here the recent revisionist views concerning the Celtic conquest of Ireland. That the Celts became rulers of Ireland, aided by their iron weapons and wheeled chariots, is not disputed. However, they did not replace or extinguish the Gaelic population, whose presence remained strong and who intermarried with the Celts (Somerset Fry, P.&F. 1988:16). Therefore, the Celtic association with Tara, and the stories the Celts told of the Boyne Valley, could well be reflections of the original populace and demonstrate its persistent continuance despite successive 'conquests'.

The arrival of Christianity in Ireland in the fifth century A.D. and the acceptance of Saint Patrick's doctrines were officially recognized at Tara. The Neolithic reverence for hilltops, which continued with the Celts, was again instrumental in the acceptance and practice of Christianity (Estyn-Evans 1981:79). Where once the pagan *Beltaine* fires had burned, people now turned the hilltop veneration into a Christian pilgrimage. The use of the hill was recognized by early Christians such as St. Patrick himself, who went and preached there to ingratiate themselves with the local people and their beliefs.

Anglessey, Wales, displays very similar art and technique to the Boyne Valley and is translated in English as Abode of the Apron.

In the seventh and eight centuries A.D., Kells, Co. Meath, was a flourishing monastic settlement from whence came the famous Book of Kells. During the Viking raids, some of the megalithic tombs were plundered by the marauding Northmen in their quest for treasure. Newgrange, perhaps because the entrance had already collapsed, was unplundered by the Vikings (O'Kelly 1989:25). The role of the megaliths upon the landscape continued through history: they played an active part in the lives and imaginations of successive generations. In 1690, the Catholic King James Stewart II and his Irish army were defeated at the Battle of the Boyne, a few miles from the Boyne passage-graves. This proved to be an event of immense historical importance in the conquest of Gaelic Ireland and the plantations of Ulster (Somerset-Fry, P.&F. 1988:161). Even today the Boyne Valley is a source of great pride and cultural importance to contemporary Ireland.

Why then should one place claim so much prestige and attract so much attention? Part of the explanation no doubt lies in the fertile soils of Meath, ideal land for cultivation and later, for cattle grazing. Geomorphological explanations (Estyn-Evans 1981) point to the area's receptiveness to incoming migrants and conquerors, by virtue of its position midway between the distinct drumlin belt to the north and mountainous region to the south. It is also situated far enough upstream to be reasonably alerted to incoming attack by sea. Perhaps most importantly of all, it has been, since the initiation of the finest passage-grave conglomeration anywhere in Europe, a place revered by the native Irish. Its historic association with the one of the 'first' and most prominent occupants made the Boyne Valley an ideal location for a Celtic capital that sought a symbiosis with the pre-Celtic population.

In the fifth millennium B.C.E. the ridges, plains and penetrating rivers, of the Boyne Valley provided sustenance for semi-sedent hunter-gatherers. Beginning in the early fourth millennium B.C.E., and thereafter gaining momentum, the relationship of people to the land changed. In the new social order that emerged, the construction of passage-graves was inextricably linked to the political nature of these societies. During this millennium some of the finest megalithic architectural techniques and results followed. Their placement, size, intricacy and variety of social functions all hint at a latent power, a power that was invested in these structures, and the power structures that their use of space represents. The ability of a social archaeological framework to investigate power structures as evidenced in megalithic passage-graves will be a recurrent theme in this thesis.

What this thesis hopes to do is to develop and construct an image of the megalith building society of the Boyne Valley of Ireland, an image which will contribute to the understanding of the role these megalithic passage-graves played in the social order of these communities. We intend to demonstrate that the existing methodologies and theories applied to the megalith builders do not address the social structure sufficiently. By applying social archaeological methods⁸, which pay greater attention to historically specific and contextual uses of space and stone, we hope to read more clearly the role material culture played in prehistoric society:

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⁸Redman, (1978:9) has outlined the programme of Social Archaeology as an increased methodological expertise coupled with meaningful interpretations. See Chapter 4.

The principles out of which agency is structured are the object of our enquiry, and for that enquiry to operate archaeologically it must consider the place of material culture within social practice (Barrett 1994:165-166)

It is maintained here that the scale and scope of passage-graves denote more than a 'reaction' to general processes such as migration, or that their builders were "inflamed almost to madness by the peculiar genius of their religion" (Barry 1805:102). The spread of passage-graves and their construction in different ecological zones marks them as deep expressions of political will and social order. It is this political motivation made manifest in stone that previous theories have failed to address. An understanding of their underpinnings and methodologies will explain why.

Analysis of these monuments should be both broadened and narrowed. It should, on the one hand, focus on the broader themes and movements of megaliths around Western Europe in order to contextualize the Irish passage-graves. However, an acknowledgement of the many different varieties of passage-graves and of the different ecological niches within which they functioned suggests that each must be examined in its own context in order to understand the significant roles each played in its unique community and territory. The broader picture of megalithic societies can aid us in constructing a picture of the subsistence round and settlement types for areas with an extreme paucity of such data. Although it is useful to supplement our knowledge of one passage-grave collection with information from other passage-

grave centres, or even to make comparisons between these areas and megalithic court-tombs, one must keep in mind that the variances between even similar passage-grave communities indicate a distinctive and separate development process.

What part may the remains of the passage-grave tradition play in piecing together the past? What can archaeology say about a prehistoric society from ritual and funerary remains? As has been the case with the pyramids of Giza (Wenke 1990:383) and the hieroglyphic staircases of Copan (Fash 1988:161), 'ceremonial-centers' can reveal a great deal. They indicate practical physical data on land preferred, diet, age and other basic subsistence information. The megaliths as physical testaments to flourishing 'cultures' (culture is used because shared traits go beyond architectural) may inform us of technical abilities, in terms of tools, transportation and communication; stylistic preferences, in pottery remains and artistic decoration; and ideological, social and spiritual beliefs, such as funerary ritual, cosmology and the worship of ancestors. They might even inform of political structures, in terms of labour organization, resource management and symbolic representations of unity or segmentation.

It is the contention here that megalithic passage-graves were the social nexus of these communities, wherein were held, or invested, the community's emotional, political and social cores. Passage-graves were the ceremonial centres of communities, where ancestors were placed and where doubtless were occasioned the rituals that accompanied funerals and other religious ceremonies. Centered on and around passage-graves, literally and figuratively, were the astronomical and

cosmological knowledge bases of the communities. In a sense the passage-graves acted as charters for the community, where most, if not all, events of importance to the community took place. This association of astronomy, ritual, and political representations with the passage-graves naturalized the 'spiritual' and political structures and legitimated the social order. This theory will be supported by reviewing the existing interpretations of the passage-graves, and then applying social archaeological theories to the analysis of artifacts, landscape, architecture and the use of space. Such an approach will uncover the physical, technological and ideological realities of the society of the builders and the role these monuments played in their world.

Chapter 1

LANDSCAPE & SUBSISTENCE

Introduction

Dates for the Beginning of the Irish Mesolithic and Neolithic
(After O'Kelly 1989).

Period	Before Present (BP)	Before Christian Era (BCE)
Mesolithic	9000	7000
Neolithic	6000	4000

The Mesolithic period in Ireland lasted, it appears, for at least 3,000 years (7000 B.C.E. - 4000 B.C.E.), yet it has left not one single megalithic structure. The Neolithic, in contrast, lasted just over 2,000 years (4000 B.C.E. - 2000 B.C.E.) but produced approximately 1,400 megalithic monuments that have survived, and most likely many more. It is well known and accepted that hunter-gatherers usually have much more leisure time than horticulturalists and pastoralists (Lee 1984). Why then is one period characterized by a frenzy of monumental architecture and the other none? The answer, we believe, is not to be found in examining leisure time, nor is it to be found in 'ethnic' differences. Rather, the reason why so many megaliths were built in the Neolithic and not in the Mesolithic lies in a combination of a greater population (and its demands on resources such as space and game), a change in subsistence activities (in part because of demands on

resources) and, most importantly, a change in social group structure and political structures. First, in order to contemplate the changes in the Neolithic, we must take a quick glance at the preceding eras.

The Mesolithic in Ireland

Ireland is a small island located on the western outskirts of continental Europe. It comprises some 32,000 square miles (Plate 1). In geological terms, the island has only recently separated from the European mainland, less than 10,000 years ago (Estyn-Evans 1981:18). Evidence of human occupation during the Paleolithic period has yet to be found in Ireland (Somerset-Fry, P.&F. 1988:1) or rather the evidence that exists (O'Kelly 1989:5) has yet to be accepted as Paleolithic. Despite evidence of human occupation of Britain that has been dated to approximately 250,000 years ago (O'Kelly 1989:5) and continues, albeit sparsely, through the Middle and Upper Paleolithic "[t]here is no evidence of this in Ireland at present" (O'Kelly 1989:5).

Mesolithic Ireland has left scant evidence of occupation by hunter-gatherer populations of this period, bar some occasional flint tools and one or two huts. Preservation of material remains in the acidic soil of Ireland is exceptionally rare for any materials other than stone and bone, although there are isolated finds of preserved organic materials from bogs. These bogs, which cover a large part of central Ireland, may hold many more finds preserved in this oxygen-poor environment. Finds such as the much published Lindow Man are an indicator of the promise these bogs may hold for revealing further remains (Botherwell 1986:88). The Eastern shoreline has changed since Mesolithic times, with

isostatic rebound resulting in raised and sunken beaches that have most likely destroyed the coastal sites and fishing camps of the Mesolithic (Piggott 1954:1-2; Morrison 1980:130). The soil has, in most parts of the country, been ploughed for close to 5,000 years, with the inevitable result that much evidence has been destroyed.

Despite the limited number of finds and the conditions that mitigate their survival, there is now a greater understanding of the Irish Mesolithic than ever before. Flint debitage finds from the Southwest and from the centre of the country indicate that people were more widely dispersed than previously thought (O'Kelly 1989:25-27). The earliest settlement site discovered in Ireland is that of Mount Sandal, (8960 B.P., Woodman 1985:148) County Derry, excavated by Woodman (Woodman 1978). Extensive subsequent ploughing had not destroyed a small part of the occupation layer of a semi-subterranean collection of huts and storage pits. The huts do not appear to have been contemporaneous and thus it is hard to imagine a very large number of people living there⁹. Likewise, the pits which yielded the 1,000 blades and 200 microliths (O'Kelly 1989:22) might represent consecutive use of the pits and therefore not accurately reflect contemporaneous populations. These pits held other evidence such as eel, fish, hare and young wild pig bone.

The huts had been placed in a hollow, giving them a subterranean appearance familiar from both the Paleolithic and Mesolithic from

---

⁹ Bintliff claims that "informed estimates" for the Late Mesolithic in Britain run in the hundreds of thousands at maximum, and were possibly *the* major component of Neolithic populations (1983: 88-89).

Europe. The semi-subterranean character of Mount Sandal is reminiscent of a tradition stretching back to the Paleolithic in Eastern Europe. At Dolni Vestonice in the Czech Republic, Upper Paleolithic people of 27,000 years ago constructed a semi-subterranean hut of mammoth bones and tusks in a circular design which they covered with hides (Wenke 90:178). It is possible that hides too were used in Ireland but have not been preserved. It is notable that in Ireland, the lack of big game and their useful and sturdy carcasses dictated that the settlements be of a more pliant and weaker nature. The associated remains from Mount Sandal indicate that the people who constructed these huts lived, at least for a part of the year, on wild pig, hare, birds, hazel nuts, salmon and eel. The hazel shells have provided carbon 14 dates of 8960 +/- 70 B.P. Another find from this period was made at Toome Bay on the shores of Lough Neagh in Northern Ireland. There, charcoal from a hearth was dated to 7860 +/- 110 B.P., to which O'Kelly has recently added that human occupation is known to have occurred at least 1,000 years before, i.e. ca. 6900 B.C.E. (O'Kelly 1989:16). Other scattered Mesolithic finds and dates available from Ireland also indicate that people were there at the beginning of the seventh millennium B.C.E. (Eogan 1986:203).

The remains of material equipment from the Irish Mesolithic are largely made from the almost indestructible flint that was especially available in Antrim in the Northeast of the country (Estyn-Evans 1981:37). However, preservation bias in flint sources should not give the impression of a wholly stone tool technology. Rather, there is also evidence of the skilled use of clays for pottery, wood and wood-shaping tools for hut manufacture, and doubtlessly rope, hide and skin working.

The flint-industry of the Irish Mesolithic consisted of both narrow-bladed microliths (O'Kelly 1989:22; Morrison 1980:134), and large flint blades. In the Early Mesolithic, the technology of Irish people was similar to that of Southern Britain (Renfrew 1974:105), but later developed an insular character that "gradually settles to a distinctive tradition which cannot be found elsewhere other than possibly on the neighboring island of Man" (Woodman 1978:211). Chert from the South of Ireland is found in the North, Northern flint is found in the South, indicating contact between these areas (O'Kelly 1989:25-27).

Overall, the image for this period is one of a seasonal settlement type (Morrison 1980:132) with utilization of nut, wild animal and fish resources. In the very early Mesolithic there was a similarity in blade technology with that of Britain, when sea levels were at their very lowest. As the Early Mesolithic wore on there developed an insular flint and chert industry (O'Kelly 1989:26; Barker 1985:196) as the island that would become Ireland was explored and populated by seasonal groups. The evidence from the Mesolithic presents a picture of low density populations, dispersed and relatively isolated, living in small groups (Whittle 1985:196). Population levels were contingent upon resources, and it has been shown that, due to the island's early separation from continental Europe, Ireland "did not have a dense population of large mammals" (Barker 1985:196). The subsistence route followed by these people appears to have been a seasonal one, with river, lake and coastline areas being exploited. Forest clearances are unknown in the Mesolithic, as are any disturbances of the soil which would indicate plant or animal exploitation. Further, the technology employed was suited to hunting small game which probably

supplemented the groups particularly during the winter months. As previously noted, there are no megalithic constructions during this period, perhaps because there was little need for them. Hunter-gatherer groups almost by definition do not engage in major architectural projects: their internal organization is seen as the type "which evince[s] a less complicated history, whose structure is simpler in content and form, and whose institutions are extensively patterned by subsistence activities" (Lee & Devore 1968:11-12).

Population density in the Early Mesolithic is unclear to date but was most likely quite low. Mesolithic people can be deduced to have been among the first colonizers of the island. Whether the first entrants into Ireland came dry-shod or in boats is unknown but the knowledge available on sea levels would indicate the latter (O'Kelly 1989:18; Woodman 1978:211).¹⁰ Their new forested land offered an abundance of small game, fish and nuts, resulting in little competition for resources and no apparent need for any social organization other than the local group, save to briefly meet and exchange marriage partners. There was no pressing demand for, or apparent benefits from investing in, communal building projects. This is not to suggest that there were no ritual areas or sacred landscapes in the Irish Mesolithic, but such areas which left the landscape unaltered may never be recovered. Mention must be made of the frequent coincidence of Mesolithic remains (Maps 2 & 3) with later Neolithic sites.

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¹⁰A more detailed description of possible sea crossings can be found in Case 1969:176.

Map 2

(after P. Woodman)

Map 3

(after S. Ó Nualláin)

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By itself this does not automatically indicate succession from the Mesolithic to the Neolithic of the same people. On a small island it should not surprise us that certain areas with convenient water access, soil, hills etc. would be chosen repeatedly.

There is evidence from many passage-grave sites of pre-mound activity. At Townley Hall 2, at Baltinglass and at Mullaghfarne, evidence of hut building either directly underneath the cairns or in close proximity to them has been found (Eogan1986:196). As to whether the hut markings, pottery and flint remains from these sites are indicative of hunter-gathers or farmers is difficult to ascertain. However, the frequency of such pre-megalith activity may well mean that the sites chosen for some passage-graves were selected specifically, and might even have commemorated a previous symbolic association with these areas. The discovery of these earlier sites has been by and large fortuitous, as archaeologists worked on restoring collapsed megaliths. Whether the passage-graves that remain intact and fairly undisturbed also conceal settlement evidence underneath is an intriguing question. Unfortunately it is at present very difficult to get at these sites without disturbing the structures above them.

In mainland Europe one can sometimes speak of an "ecologically conditioned mutual exclusion of the Mesolithic and Neolithic populations due to a presumed absence of competition for the same resources" (Raymond 1983:71; Sherratt 1990:148-9). In Ireland this clear distinction can not be said to hold up very well, because there is very little evidence of the Mesolithic people who inhabited Ireland, and secondly because among even this evidence there is continuity in

location. This fact, when seen in light of the very long time it took agriculture to reach into Ireland, may in fact indicate that the Mesolithic people of Ireland were not in fact awaiting destruction at the whim of an incoming Neolithic Revolution. This delay in the acceptance of agriculture in Western Europe prompts Newell to state that:

[P]erhaps Mesolithic society first needed to develop a functional tribal level of organization before the labour-intensive work of food-production could be successful on the long term (Newell 1984:75)

This statement accords with the political role envisioned here for the passage-graves. Yet it remains unclear what role the Mesolithic population did actually play in erecting the megaliths and one can not rule out the movement of people into Ireland during the Early Neolithic who brought with them the passage-grave building tradition. The time-lapse evidenced (Estyn-Evans 1981:72) between the first forest clearances and the introduction of megalithic architecture might well hint at incoming populations adjusting to, and adjusting, the social structure of Mesolithic inhabitants.

It becomes apparent through site finds and tool types that, as the Neolithic and its associated technology took hold in Ireland, a new subsistence routine was developing (O'Kelly 1989:40-41). Whether this change in subsistence represented a local development, diffusion of an idea, or the influence of an immigrant group will be addressed in greater detail below. However, an intermingling of Mesolithic people with Neolithic ideas and perhaps Neolithic immigrants, is espoused here as likely. The evidence for forest and land clearance, and the

introduction of some small scale cultivation in the Neolithic, is indicative of the subsistence changes that forced social changes and resulted in the construction of the megaliths.

The Neolithic in Ireland

The earliest known human remains from Ireland were found by the 1935 Harvard Archaeological expedition to Ireland (Movius 1942), and are comprised of the Kilgreany A & B skeletons, from Capagh, Co. Waterford, dated to 4850 +/- 150 B.P. for skeleton B, "and a slightly earlier date for the other". (O'Kelly 1989:6). The oldest Neolithic domestic evidence from Ireland comes from the site of Ballynagilly in Co. Tyrone, Northern Ireland (O'Kelly 1989:48). Here, beneath a peat bog, were found the remains of four sites. The oldest site was dated to 5600 B.P.; the other three were from the succeeding Late Neolithic and Beaker periods and are indicative of a continuous occupation of the site (Apsimon 1971:12). The Early Neolithic site finds consisted of sherds of plain Western Neolithic Ware (O'Kelly 1989:48-50). Wooden planks were used in the construction of these huts, the first such evidence in Ireland. The deepest hut, dated to the Mesolithic, measured 6.5 by 6 metres (Apsimon 1971:11-13).

Neolithic Technology

The most common flint tools in the Early Neolithic were pressure-flaked bi-facial microlith blades (O'Kelly 89:39-40), which have been found in many areas around the island. In contrast to the Mesolithic, scrapers became common as well as other wood-working and land-clearing tools. The latter appear in the form of polished stone axes and sickle-shaped tools. The technology clearly reflects a change in subsistence pattern and the need for an expanded tool base from which to clear forests and prepare the ground for horticulture and/or farming.

Pollen analysis has demonstrated that there was "human interference" with the forest by at least 3900 B.C.E., continuing intermittently until the end of that millennium (Estyn-Evans 1981:72). Regeneration of the forests occurred over the centuries and the exact sequence of human intervention is unclear, but there was an increase in forest clearance throughout this period. Roughly, the forest clearances pre-date the evidence for megalithic constructions (Barker 1985:202), and this is understandable if we attribute some few centuries of consolidation to Mesolithic and immigrant Neolithic populations before they were either sufficiently organized, or compelled through political, subsistence and/or population pressures, to erect megalithic structures. Whatever the actual cause for the commencement of megalithic construction, within a few centuries of the forest clearances, megalithic architecture changed the Irish landscape forever.

Human Remains from the Boyne Passage-graves

Before examining the actual megaliths it is expedient to detail the very few human remains so far recovered from them. At the passage-grave of Knowth, Eogan has noted that "except for a few pieces of articulated bone the rite was cremation" (1986:39). At Newgrange the remains of at least two individuals were detected from dozens of minute bone fragments. Also at Newgrange, thirty-two teeth, all but two in very good condition, were found. These indicated two subjects, aged twenty-five to thirty-five, and thirty to forty respectively. Information from the Dowth excavations (still ongoing) is unknown, but in 1849 it was reported that "scatters of burnt [human] bone" were found (Herity1974:248). At all three of the main passage-graves in the *Brugh Na Boinne* complex, to use the Irish name, cremation was the normal rite.

So many were buried that we must conclude that more than a small elite could aspire to burial in the tombs, the numbers buried being counted in the tens and hundreds rather than in ones and twos. It would seem from these numbers that everyone in the community had an equal right of burial in the communal grave (Herity 1974:119).

Chapter 2

DESCRIPTION OF MEGALITHS

It is crucial to begin with a detailed understanding of the what these monuments actually are. The word megalithic is derived from the Greek *megas* - great, and *lithos* stone. Broadly, a megalithic structure is characterized by dry-stone walling, an absence of mortar, and the use of huge stones. Some of these stones can weigh up to 100 tonnes, such as the cap-stone to the Mount Browne dolmen in Carlow, Ireland (Daniel 1958:14) or the Grand Menhir Brisé in Morbihan, France, which is estimated to weigh 350 tonnes (Scarre 1983-4:295).

The western seaboard of Europe abounds with these megalithic monuments, from Malta to Co. Sligo, to the northern islands of Scotland and back eastward to the Danish coast. According to some estimates, there are between 20,000 and 50,000 megaliths in Western Europe (Daniel 1958:14; Estyn-Evans 1981:72).

There are at present something between fifteen hundred and two thousand megalithic tombs in the British Isles. Their distribution is generally essentially Western and North-Western; at the present day, England and Wales between them probably have no more than 250 megalithic tombs, Scotland perhaps 350, and Ireland getting on for 1,000 or more (Daniel 1958:105).

There are four main types of megaliths, which are distinctive in structure and, for the most part, in geographic location. These variations on megalithic structures are: menhirs (single standing stones, or standing stones and cap-stones as seen at Stonehenge), dolmens (free-standing megalithic chambers which may be buried under a cairn or have a roof formed by a single cap stone), court tombs (inner chambers surrounded by a court marked off with a cairn, orthostats or menhirs), and chambered passage-graves (O'Kelly 1989:85-108). The general plans of these structures, and some of the grave-goods found within them, display certain similarities throughout Western Europe.

Chambered graves are the most common form of megalithic structure in Atlantic Europe, and are divided into passage and gallery graves. Gallery graves generally have parallel-sided megalithic chambers, and do not show differentiation between the narrow entrance passage and the wider burial chamber within. Frequently the surmounting mound is rectangular rather than round.

There are over 1,400 megalithic structures in Ireland (Eogan 1986:17), the vast majority of which were built roughly between 3500 and 1500 B.C.E. Distribution patterns in Ireland for the 4 major types of megalithic structures are as follows. All but five of the 329 known court-tombs are located in the northern third of the country (O'Kelly 1981:178). Court tombs have been viewed as representing an earlier tradition in Ireland (Renfrew 1981:78) and of being representative of a more dispersed community because of the lack of conglomerations. The wedge tomb, so called because the chamber is wider and higher at one end, dominates the western half of Ireland, with major conglomerations

around northern Co. Sligo and southern Co. Donegal, and north of the Shannon estuary. There are a few scattered tombs along the East coast, but of the 400 or so wedge-tombs, only about 3 dozen are not situated in the western half of Ireland (O'Kelly 1981:178-9). The occurrence of the portal/dolmen tombs displays a marked preference for 2 areas: of the 160 of these tombs, over 100 are in the north of the country, about 30 in a band stretching from south Dublin to Waterford, and the remainder are located around the west coast. The passage-graves, but for a scattering in the south-east, are located in an area that stretches from south Co. Wicklow to Sligo Bay. This directional distinction, north-west, is clearly reflected by the distribution of the 4 major concentrations of passage-graves (Map 3) - the Boyne, Loughcrew, Carrowkeel and Carrowmore 'cemeteries' - as they form a curve that encloses the north of the country.

To date not much can be said of the domestic life of the people who built the wedge-tombs of the north. Other than the isolated house find at Ballynagilly (Apsimon 1971:11), their settlements are as unknown as those of the passage-grave builders. A major distinction in their style, other than the actual inner structural differences, is the almost complete absence of ornamentation on all but the passage-graves (Herity 1974:153-4).

The ubiquity of passage-graves in Ireland, and the length of the period over which they were constructed (more than 1,500 years) points to a complex and long lasting political entity that remains to be properly delineated. The lack of a clear image of this society or societies has been attributed to the extreme paucity of settlement

finds. (Renfrew 1981:74) which results in "spurious boundaries" in distribution maps (Groube 1981:189). It has also been attributed, as will be shown here, to a lack of investigation beyond descriptive analysis of the tombs themselves.

Physical Description of Megalithic Passage-graves

As mentioned above, chambered tombs consist of a passage and chamber covered by a cairn. The passage, or corridor, is constructed of large upright stones called orthostats, which, when placed in two parallel rows and covered by massive cap stones, form an enclosed corridor. This orthostatic corridor leads to a chamber that is usually higher and wider than the passage itself; where this is not so, the structure is referred to as an undifferentiated passage-tomb (O'Kelly 1989:104). The passage is often demarcated by sill stones which are often richly decorated and whose symbolic importance will be discussed below. The roofs of these chambers are formed either by corbelling¹¹ or by raising the cap stones higher than the corridor itself. The latter method is achieved by a higher pairing of orthostats as the chamber begins and by raising the roof by installing 'lift' stones between the orthostat tops and the cap stones.

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¹¹A corbelled roof is formed by laying successive layers of cap stones on top of the orthostats, each layer leaning in further, weighed down by the next layer, until only a small hole remains. This hole is then closed off by a cap stone.

The chamber of the 'classic' passage-grave is usually round, and in the case of the Boyne Valley, normally consists of three recesses which give rise to the name "crucible chamber". The entire structure, "without exception" (O'Kelly 1989:101), is then covered over by a massive cairn consisting usually of sod and water-rolled pebbles (Herity 1974:29). This cairn, sometimes referred to as a barrow or tumulus, is contained by a kerb of low orthostats or a revetment of dry stone walling (O'Riordain & Daniel 1964:21-22). A distinctive trait in passage-graves in Ireland is the occurrence of engraved ornament, which is particularly notable in the Boyne Valley and Loughcrew centres of Co. Meath.

With reference to the building sequences, both within passage-grave conglomerations and between different areas, Sherratt states,

[P]hases may overlap, or occur in spatially discrete areas, and there is no simple succession: types may continue to coexist and be consciously elaborated in opposition to each other, older forms may be reviewed or accommodated to new ones; so that individual cases must therefore be explained in their context. Yet there is an underlying regularity, which demands explanation (Sherratt 1990:150).

The regularities posited are accorded varying degrees of importance by different archaeologists. As we are concerned here with the Boyne Valley and its twenty-five to thirty passage-graves, it is the internal sequence that we will address. Newgrange and Knowth were constructed around the same time - 3300 B.C.E. (O'Kelly 1989:350-1) - and Dowth a little later, circa 3000 B.C.E.

The smaller satellite passage-graves that are centred around the three major tombs could be of great interest with regard to the development of social and political systems in the Boyne Valley. Unfortunately there is little secure data from which to work out a sequence to all the smaller passage-graves which surround the larger structures. The radio-carbon dates that are available for these satellites, and their positioning, indicate that at least some of them were built before the main mounds (O'Kelly 1989:109).

The grouping of smaller 'satellite' tombs around these three sites is indicative of a development in passage-grave building from small to large and complex. This development is a very important area that requires much clarification and research as it hints at the development of the community and its power to build. Dating these smaller passage-graves that surround and adjoin the larger constructions is notoriously difficult due to a lack of organic material and to the overlaying of the great passage-graves around them. They have also suffered denuding during the Beaker and Celtic phases. Eogan (1986:212) claims that "in relative terms" the smaller sites, 13 and 16, at Knowth "predate the large mound, or at least, the portion of the large mound along the northern side". Similar evidence exists at Newgrange, where O'Kelly has noted a tentative sequence for sites K and L, with K being earlier than L (O'Kelly 1978:249-352).

If, as does appear likely, these sequences are correct, an answer to the question of where the expertise to build the great passage-graves of the Boyne Valley sprang from is thus supplied. Without the smaller

sites, it had appeared that the technology to build such megaliths simply appeared as it were overnight, lending credence to earlier diffusionist views. The antecedence of the smaller passage-graves, mostly undifferentiated 'simple' constructions, is capable of providing valuable evidence not only for the development of technological skills, but also for the development of a larger community and an increasing importance of megaliths to the community. The appearance of megalithic architecture would therefore not be seen as an intrusive creation but rather an *in situ* development which over time led to greater expertise and more complex structures. In discussing the labour organization of the Maya at Copan, Honduras, in relation to household architects being 'drafted' for ceremonial architecture, Abrams states:

In this context then, foremen on large-scale construction projects are not seen as newly-created specialists, but rather as leaders of pre-existing cooperative groups associated with courtyard aggregates. One can easily project a rather well-organized cooperative labor structure on the lowest level of social organization which was then simply, through kinship or political ties, tapped in the drafting of unspecialized personnel (Abrams 1987:495-6).

Location of Boyne Valley Passage-graves

If, as is proposed here, the passage-graves played a major role in the social structure of Boyne society, it is to the setting and morphology of this area that we must turn. We will detail here the specific characteristics of this megalithic metropolis, and in chapters 5

and 6 undertake a spatial and symbolic analysis of the dimensions of the tombs to demonstrate that they can in fact inform of social structures.

The Boyne Valley is located in County (Co.) Meath, North of Dublin, mid-way up the East coast of Ireland. Fourteen kilometres inland from the mouth of the river Boyne lie the three famous sites of Newgrange, Knowth and Dowth. Newgrange, one of the oldest and best known of all the Irish passage-graves, is situated sixty-one metres above sea level on top of a glacial hill. The location of passage-graves on hills and ridges is a feature common to the majority of the three-hundred or so Irish passage-graves (Herity 1974:27; O'Kelly 1989:97). The passage-graves of Knowth and Dowth are situated on adjacent ridges of the Boyne valley. Newgrange and Knowth were built around the same time (Eogan 1986:218), Dowth a little later. The three sites are therefore seen as interconnected, and expressions of a continuing community. One kilometre to the south of Newgrange lies the bend of the Boyne (Map 4); and the three sites are surrounded on three sides by the River Boyne as it loops to the South and encloses the entire complex of megaliths. Scattered about the three major sites are various tumuli, standing stones, satellite graves and smaller passage-graves. The entire area enclosing the three sites measures 4.3 kilometres East to West and 3.7 kilometres North to South, which descends from the highest point at Newgrange down to the river itself.

Map 4

from M.J. O'Kelly *Early Ireland*

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The dimensions of the three major passage-graves in the Boyne Valley are notably similar in diameter, and aside from Dowth North, are somewhat uniform in tomb length (Herity 1974:188):

Passage-grave	Cairn Diameter (Metres)	Tomb Length (Metres)
-----	-----	-----
Newgrange	8.0	25
Knowth West	7.8	34
Knowth East	7.8	33
Dowth North	8.4	14

The materials employed at the three sites are quite similar. For the cairns, a collection of sod, shale and small rocks was used. The larger rocks are a mixture of granite, sandstone, greywacke and limestone. For the larger rocks there is evidence, at least for Knowth and Newgrange, that some of them were taken from as far as 50 kilometres away in Antrim and Down, southern Ulster (Eogan 1986:217).

Therefore we can say that the three passage-graves were built within a similar time-frame, followed a well-defined blueprint and reflect similar decoration and grave-goods. It is therefore highly probable that the three formed part of one complex which served the surrounding countryside. The similarities in construction detail, material and motifs, speak of a highly organized and confident polity. In this community, of perhaps somewhere in the region of between 3,600 and 4,000 (Barker 1985:210; Herity 1974:39), some people or families cleared land, some planted it, and others still hunted. There is evidence

also that some travelled and undertook sea voyages at least as far as Northern Scotland and her Islands.

Communities within Ireland in the early to mid Neolithic were self-sufficient in food supplies (Estyn-Evans 1981) and, as they did not use metals there was no major long-distant trading network, because there was no need of one. Why then would such voyages take place? O'Kelly has suggested that the desire, or need, to bring back calves and lambs to Ireland might have occasioned such crossings (O'Kelly 1981:182). Communication between the passage-grave sites is accepted on the basis of morphological similarities, including artistic motifs and 'grave-goods' (Herity 1974; Brennan 1980). Communication between the Boyne Valley and other passage-grave communities in Wales, the Orkneys, and mainland Scotland is also evidenced through stylistic and artifactual similarities that leave little doubt that these sites were in some fashion in close communication (Renfrew 1985:253). In fact, Eogan refers to the Irish contribution to the Scottish passage-graves as "fundamental"(1986:219).

The works of Childe (1940) and Daniel and O'Riordain (1964) raise the possibility of eventually unsuccessful copper expeditions as a motivation for Iberian peoples sailing to Ireland in the Early Irish Neolithic. The passage-graves of these Portuguese and Spanish Neolithic boat-faring people were described as having an ultimate origin of ideas or people in the Eastern Mediterranean. Subsequent to Daniel's theory, he concluded that "Megalithic chambered tombs then, as we understand them in Western Europe, are translations into megalithic architecture of the east Mediterranean non-megalithic chambered-tomb"

(Daniel 1958:123). This idea is similar to Hodder's view concerning the re-incarnation of *Linearbandkeramic* long-houses (see chapter 5).

Regardless of where one chooses to locate an originating idea for megalithic chambered tombs in general, it is vital, we believe, to insist on a site-specific explanation for individual passage-graves or 'cemeteries'. Nevertheless, there are many instances of pan-Western-European similarities in materials, tools, forms and art, which could suggest a maze of interconnections that possibly spanned centuries, and were not unidirectional. These theories, however, aside from their tenuous nature and lack of clear proof, do not explain the role megaliths played in society. Just as a copper quest is tentatively suggested as a reason to establish communities in Ireland, a counter-argument is raised for the Boyne: "We know that no metal objects have been found in primary association in any Irish Passage-grave; we also know that on stone R.18 in the passage at New Grange are marks made by a metal chisel". (Daniel and O'Riordain 1964:138). Even if the latter marks were indeed made by a metal chisel, the absence of any other evidence for the use of metal is in stark contrast to the theory that passage-graves were related to copper trading.

Similar ambiguity exists in theories that relate Breton and Portuguese art forms to the Boyne-type passage-graves (O'Kelly 1981:186), when in fact, despite general regularities in placement and technique, none of the Boyne-type carvings are as anthropomorphically representational as are those at Gavrinis in Brittany or Petit Mont (Scarre 1983-4:297; Herity 1974:7). The anthropomorphic sculptings and carvings that are characteristic of some of the Breton megaliths are

not clearly evident on Irish megaliths. In general, anthropomorphic representations in the megalithic art of Ireland is "slight and discreet" (Herity 1974:94:107). Newgrange, Knowth and Dowth do, in fact, predate a good proportion of the Breton megaliths, yet the evidence from the Breton 'cemetery' of Carnac also indicates a long time frame for construction. In France there are radio-carbon dates for over twenty five megalithic monuments that date back to 5000 B.C.E. (Giot 1981:85), whose exact relationship to the Boyne megaliths remains unclear but are compellingly early (in diffusionist terms) in the megalithic development processes for Western Europe.

This thesis does not enter the debate concerning ultimate origins in great detail, preferring rather a contextual analysis of the passage-grave itself and what role it played in social structure. We would, however, like to raise the possibility of a collective social approach throughout Western Europe whereby the construction of structures from the largest stones became a fashionable technique in expressing political power. Just as the late twentieth-century witnesses a surge in all things electronic, so too did the idea of megalithic building enthrall numerous groups of people, and more importantly, became expressions of their particular, and political, desires. Finally, let us acknowledge in full the warning of Glyn Daniel when considering the international dimension of passage-graves and other megaliths:

The use of megaliths for constructional purposes was obviously developed in the world at different times by different people for different purposes. When we forget this common fact in the use of large stones, and concentrate on the details of use, date and

form, the resemblances between megalithic monuments in different parts of the world disappear (Daniel 1958:124).

Despite the changes and refinements that have taken place in our understanding of the relationships between Western Europe's various megalithic passage-graves, Daniel warning is still relevant. Archaeological investigations into megaliths, once dominated by questions of when and whence from, are now characterized by why megaliths, and why this particular shape?

Methods of Construction

Newgrange (*Brugh na Boinne*) is one of the oldest and best known of the Boyne Valley passage-graves. It was the first to be completely excavated, and therefore more is known and published about its construction process than about the other passage-graves. It is taken here as an example of the construction process that, with some differences in rock type and source, typifies the Boyne Valley megaliths on the whole. At Newgrange sometime around 5,300 years ago (Renfrew 1982:12) the people gathered, moved, sculpted and arranged 450 slabs for a passage with three recesses and a corbelled roof and ninety-seven slabs (each weighing over a tonne) for a revetment kerb to keep in place the 200,000 tonnes of loose gravel of shale and soil that comprises the covering cairn. Aside from two slabs of a brown carboniferous rock in the passage and two in the tomb, the remainder are all local greywacke from outcroppings close to the North of Newgrange (O'Kelly 1981:116). Less than a kilometre to the South of Newgrange on the North shore of

the River Boyne are two ponds resembling a figure eight. It has been speculated that the 200,000 tonnes of cairn material taken up the ridge from this spot created these fairly large ponds (O'Kelly 1989:133) which are interpreted as borrow-pits. Excavations at Newgrange (O'Riordain & Daniel 1964, O'Kelly 1982) have shown that none of the structural slabs displayed any quarrying marks, and were weathered, suggesting that they had lain about the region since the end of the Pleistocene.

We know that considerable forethought and planning went into the construction of megalithic passage-graves. This is evident from their architectural complexity, size, corbelling technique, and their astronomical orientation. The materials used were stone and wood. The latter has long since perished and its use sometimes rests on assumption. The cairn on top consisted of layers of shale, turf, boulder clay and gravel. The rocks used for the tombs themselves were a mixture of granite, sandstone, greywacke and limestone, depending on local availability as stated above (see p.36). The smaller "fill" rocks consisted of quartzite, sandstone/limestone and nodules of clay ironside. The smaller rocks, or cobbles, were quite often glacial erratics and were rounded, indicating exposure to wave action. At some of the passage-grave sites, the larger slabs were brought from distances of up to fifty kilometres away; for example, Knowth slabs from Newry, or perhaps Wicklow. It is of importance to note that the sources of the materials for all three of the major passage-graves, where known, display similarity. Although there are differences in sources for the Dowth and Newgrange orthostats, the fill rocks and the entire process are remarkably alike.

Quarrying, apart from at Newgrange, occurred on a fairly large scale for most of the megalithic tombs. In cases like the Carrowkeel cemetery, Co. Sligo, with its approximately 100 passage-graves, "almost all of the large stones of the tomb were limestone blocks quarried nearby" (Herity 1974:59). This pattern is repeated in other passage-grave cemeteries. At Carrowmore, Co. Sligo, where 80 passage-graves have been discovered so far, quarried limestone slabs and unquarried granite boulders were used (Herity 1974:64-65). In the Boyne complex, some of the quarried rocks are known to have come from County Down, from a band of lower Palaeozoic Silurian rock which extended southwards (Daniel and O'Riordain 1964:50). Marshall McCabe and Graham Nevin of Ulster University point out that:

[...] the nature of the stratification would have facilitated simple quarrying. Starting at the face of an outcrop, it would not be hard to excavate the shale and expose, or undermine, larger areas of a slab. Wooden levers could then be used to detach blocks, and the undermining might allow some to topple under their own weight (Eogan 1986:113).

Technology & Skill

It is important to note that the construction of these monuments is indicative of an absence of major social stress and conflict:

In social terms, the constant passage of men across a wide area of country implies peaceful conditions. Manual handling of large stones under threat of armed attack is

unthinkable [....] Peaceful conditions that would permit transport of these stones over an appreciable period of time could only exist in a socially unwarlike population or in one in which there was either a strong central government or complete unanimity in the importance of the task at hand (Garfitt 1979:192).

Transporting the stones presented the megalithic builders with a great challenge. There is not much evidence of the use of cattle for traction in the Boyne Valley, although evidence of cattle grazing is known from the succeeding Late Neolithic/Beaker phase (O'Kelly 1982:117) and from Neolithic Britain (Case 1969:177-8). It is also uncertain whether horses or wheeled transport were used. Given the fact that passage-graves, which contained the largest amount of rock among the Irish megalithic structures, were almost all located on the highest ridges of an area, transporting rocks weighing several tonnes was a remarkable feat which implies either great cooperation or central authority, or both. Possible transportation methods are dragging, either on the surface along wooden rollers or a mounted sledge, or carrying. Carrying is seen as the simplest method in modern experiments with moving oak trees (Coles 1973). Other experiments have shown that a stone weighing up to two tonnes could be lifted by thirty-five men with ropes. These hauling-ropes would have been made from twisted or plaited hide thongs, and animal fat was likely used to keep them supple and waterproof (Eogan 1986:114).

Heavier stones can be dragged by ropes, as experiments by Thor Heyerdahl on Easter Island (Heyerdahl 1958) and Richard Atkinson at Stonehenge (Atkinson 1961) have shown. It seems that Atkinson's were

the most controlled and valid experiments, in which the hauling method employed was the laying down of transverse rounded timber placed on top of lengthways timbers, with ropes attached directly to the stone. Irish archaeologists have quoted this model most often. Atkinson estimated that it would take twenty-two men to move a stone weighing one tonne and the daily progress would be 0.8 kilometres a day using a hauling sledge on timber rollers. He compared this method to simply hauling the stone on the rollers directly. Eogan postulates, in reference to these experiments, that:

[I]t would have been more efficient to pull the stone on a sledge over timber rollers, [...] enabling the hauling ropes to be attached to the sledge rather than to the stone (Eogan 1986:115).

Erection of Stones

Having accounted for the quarrying and transportation of megalithic stones, let us next examine the erection of these stones. To stand the orthostats upright does not appear to have been particularly difficult. One efficient method was to dig a base hole for the orthostat (which would preferably have a slightly tapered end) and to lay the upright down with its bottom protruding over the lip of the hole. The top of the orthostat would rest on either a wooden crib or on smaller stones which would be built up until it reached a height sufficient for levering into place with wooden beams and ropes (Atkinson 1961). Thor Heyerdahl's experiments on Easter Island employed the elevation method of building up small flat stones beneath the orthostats, but this proved

to be unstable and dangerous to the builders (Heyerdahl 1958). The wooden crib method appears to be safer.

The raising of the cap stones, difficult as it might seem, appears to have been dealt with as practically and as ingeniously as the elevation of the uprights. With two parallel rows of uprights (or at least two matching uprights) in place, the cairn fill was piled up at the sides, and the cap stones, resting on rollers, were then hauled and levered up the sloping ramp with ropes. The corbelling of the inner chamber roofs was expertly done. This is revealed in the minimal movement which has occurred over 5,000 years in many passage-graves. Finally, a cap stone was laid on top of the corbelled roof. These closing cap stones weighed a tonne or more, depending on the corbelled roof. The preceding process (although in places hypothetical) seems applicable to all of the passage-graves in Ireland.

Craft Specialization

The construction process of the Newgrange monument suggests great effort and ingenuity, but carvings on the monument also reflect a major investment of time and skill (Plates 2 & 3).

The actual carving was done by picking the surface of the stone so as to make a series of little picks or pit-marks. The implements were most probably flint points and a wooden mallet (O'Kelly 1989:112).

Summary

Architectural complexity and ornamentation on structures can, under proper and clear circumstances such as availability, access, and interpretive models, reveal the ideational and spiritual beliefs of those who built the structures and 'decorated' them. Lithic remains from the Neolithic which display exquisite style and workmanship tell us something of the values, structure, and power of elements within these communities. An example is the beautiful miniature macehead discovered in the central chamber at Knowth (Eogan 1986:42-43). In order to procure the raw materials for manufacture, a great deal of effort was expended. To process this material, to manufacture the macehead, and to finely carve and polish it undoubtedly required a great deal of time and effort, notably disproportionate to its size. This is similar to the disproportionate size of the covering cairns of passage-graves, which are monuments in their own right. The question is what were these items and the passage-graves meant to symbolize?

Plate 2

(Photograph: L. Kilmurray)

Plate 3

(Photograph: L. Kilmurray)

Chapter 3

ARCHAEOLOGICAL THEORY AND THE MEGALITHS

Introduction

Progress may consist of the paradox that, as the quality of both data and theory improve, interpretation becomes more difficult (Whittle 1985:306).

Contemporary understandings of the European Neolithic have been derived from successive stages in the development of archaeological theory. It is worthwhile to identify briefly some of the more fruitful understandings of megaliths gleaned from past approaches, since several of these have been synthesized with modern social archaeological approaches in order to develop the theoretical framework to be applied in this paper. This theoretical framework attempts a unification of elements from: Hodder's "domus" model (1990) (see below), neo-diffusionist associations of passage-graves with subsistence change (Sherratt 1990), and Thomas (1990) and Barrett's (1994) symbolic-spatial analysis models. This synthesis of the more valid points from these models offers a well-rounded approach to the analysis of the passage-graves.

The following theoretical review is not a history of archaeological thought in general, but of the analysis of megalithic structures in

particular, and how archaeological theory has impacted on our understandings of them. This approach results in a concentration upon Western European archaeological literature, and the excavations which we consider herein are almost exclusively from that area. A grand corpus of work exists on megalithic constructions, and provides a substantial basis from which to proceed. However, in summarizing some of the major developments within archaeology from the 1890's to the 1990's, and taking as a starting point the demise of antiquarianism and the advent of a more scientific and rigorous archaeology, it will be shown that many of these explanations are inadequate. Some concentrated upon grand processual schemes that lumped all of Western Europe's megaliths together and therefore examined them as an intrusive unitary phenomenon. Previous explanations of passage-graves did not fully attempt to recreate the past social structure and therefore, we believe, have presented an incomplete image of their builders. Some err in the origins they ascribe to the tombs, partly because they attempted to elucidate origins without referring to function. Finally, some of these previous explanations are very outdated, compiled at a time when archaeology was ignorant of Europe's chronology, and are therefore biased in terms of attributing the development of these structures to different colonizers, such as Danes and Mycenaeans (Molyneux 1725; Eogan 1986:18).

Although not a focal issue in this thesis, an examination of the origins of megaliths, and passage-graves in particular, is necessary to understand the previous interpretations of these monuments and why such views came into being. The origins of passage-graves will also be examined with the aim of understanding the initial motivation for

construction. This background will be helpful in analyzing the contextually-specific and historically-contingent aspects of the passage-graves in the Boyne valley. All of these past theories will be drawn upon and used as examples of how archaeology has already contributed to an understanding of these Neolithic people, what it has failed to do, and what remains to be done.

History of the Analysis of Megaliths

Records of the megalithic chambered tombs of Ireland stretch back to the eleventh century with the *Seanchas na Relic*¹² (History of the Relics), a compilation of known monuments in Ireland at the time. The *Seanchas* is part of the ancient Gaelic compendium known as *Leabhar na h/Uidhre* (*Book of the Dun Cow*) and tells among other things of a place called *Brugh na Boinne*, resting place of the Irish deities Dagda and Oengus. It was compiled by the 'Four Masters' who collected oral traditions from as far back as the fourth century, and perhaps long before, and committed them to paper under the various *Annals*. Under the year A.D. 656, there is mention of the death of a man named *Cellach* at *Brug Mic an Og* (the house of the youthful hero, Oengus) which has been interpreted as Newgrange (*Brugh Na Boinne*) (O'Kelly 1982:25). Other than the further mention of the sacking of Knowth and Dowth by marauding Vikings, who, according to the *Annals of Ulster*, had a fleet on the Boyne in A.D. 836 and A.D. 841 (O'Kelly 1982:25) there are sparse

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¹²For a fuller account of the Boyne Valley megaliths in ancient Irish literature, see O'Kelly 1981:43-7 and O'Kelly 1982:25.

indigenous references in the literature to these monuments until the late seventeenth century with publications by various antiquarian scholars.

Antiquarian Approaches

The term "antiquarian" is generally applied to archaeologists who operated before the clear development of archaeological and anthropological paradigms: that is, prior to the formation of anthropology as a coherent field of academic inquiry replete with formulated doctrines of investigation and interpretation. Although their work was sometimes to the detriment of the 'scientific' archaeology which was to follow due to the damage caused to the sites by their investigations, occasionally the antiquarians salvaged megaliths from increasing public interest and expanding towns and populations. Despite the poor archaeological techniques and the sometimes questionable motives of antiquarian archaeologists, they did contribute significantly to the development of archaeological theory and practice, in particular by the collections of information which they produced on a wide variety of megalithic structures throughout Europe.

In 1699, Edward Lhwyd, the Welsh naturalist, entered the passage of Newgrange. He described this "rude monument" as some "Place of Sacrifice or Burial of the ancient Irish" ¹³. Despite a gold Roman coin

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¹³In a letter to Tancred Robinson, December 15, 1699, reprinted in Coffey 1912:8.

bearing the image of the Emperor Valentinian which was found in the covering cairn (Daniel and O'Riordain 1964:32). Lhwyd placed the construction of Newgrange at the "dawn of Irish history". However, this opinion was short-lived because Lhwyd died in 1709 and his work, "which would have put antiquarian studies a century ahead" (Herity, 1974:12), went unpublished.

In 1726 Molyneux, Professor of Physic at the University of Dublin who had worked earlier with Lhwyd, reached a different conclusion. He proposed that Newgrange was a Danish monument erected during the Danish occupations of Leinster (one of the four provinces of Ireland, which contains the counties WestMeath and Meath). This theory was more in keeping with the spirit of the times and the Ussherite doctrine pronounced in Dublin by Archbishop Ussher which placed the creation of the earth in 4004 B.C.E. Molyneux believed that the first people to reach Ireland were the Celts and that long chronologies for Ireland's occupation were unacceptable. If the Celts were the first to reach Ireland, then the megalithic monuments could not have been older than them. Since the Celts were not known to have built megaliths, the monuments were subsequently ascribed to the Danes, since similar monuments were known to be found in Denmark.

Molyneux's opinion prevailed, and for over a century it was to remain the dominant view of Newgrange and, by implication, the other Irish megalithic constructions, all of which were seen as originating from the Danes, Normans or even the Mycenaeans (Fergusson 1872: Daniel 1958:123; Daniel and O'Riordain 1964:129).

The mid-eighteenth century saw a Victorian-era positivist image of the monuments of the Boyne Valley take shape. The name of Mithras was claimed to be deciphered from the carvings on the orthostats at Newgrange (Vallency 1771:256-58) and other motifs were variously interpreted as, for example, ships (Coffey 1912) and human forms (Daniel and O'Riordain 1964:60). The interpretations of the motifs found on Irish megaliths were not substantiated by other aspects of the structures.

The nineteenth century witnessed an explosion of interest by scholars and the general public in the megaliths, and in prehistory in general. A series of classificatory expeditions were undertaken around the country which sketched most of the main 'cemeteries' and excavated a few of the smaller satellite passage-graves. The partial excavation of Newgrange was undertaken by the Board of Works and was recorded in the new *Proceedings of the Royal Irish Academy* (O'Riordain & Daniel 1964:46). William Wilde, father of Oscar, was the first to postulate the Boyne Valley as the ancient *Brugh na Boinne*, and he called the whole complex the "Irish Memphis" (Wilde 1849).

George Coffey began work at Newgrange in 1890. As Keeper of Irish Antiquities in the National Museum, he was one of the first people to describe systematically the internal construction of the monument, and his *Newgrange (Brugh na Boinne) and other incised Tumuli in Ireland* (1912), remains a standard monograph. However, archaeologists of this period still made little attempt to theorize the nature or functioning of the society which built the monument, limiting themselves to the

description of the remains and tentative observations on social structure.

Ireland in the 1930's

Archaeology in Ireland at this time tended not to be very theoretical, and although major excavations were undertaken and important finds uncovered, the metaarchaeological debates witnessed in other countries did not occupy a prominent place in Irish archaeology. There was some work done from time to time: for example, in the 1930's, R.P. Macalister worked in the Boyne Valley (Macalister 1931), excavating some of the kerb stones around Knowth until he was forced to stop by the landowner (O'Riordain & Daniel, 1964:47). However, no major advancements in understanding of the Irish Neolithic occurred.

Functionalism

Functionalism emerged as a force in the 1930's. As defined by Malinowski, functionalism describes culture and its institutions as primarily satisfying biological needs. Social structure is thus seen as *sui generis* (Childe 1929:248) and culture as "essentially an instrumental apparatus by which man is put in a position to better cope with the concrete specific problems that face him in his environment in the course of the satisfaction of his needs" (Malinowski 1960:150). Explanations that sought to demonstrate a functionalist utility for passage-graves were common in the first half of the twentieth century.

While Childe had applied a Marxist model to his functionalist accounts of society (1958), Clark, although eschewing Marxism as a theoretical approach, saw the primary function of a culture as ensuring the survival of the society (Clark 1939:1-3). According to Clark's interpretation, the archaeological record should aim at reconstructing the economic, social and political organization of a society with the aim of understanding how these aspects related to each other as parts of functioning systems (Trigger 1989:264-5). These works sought, in the megaliths, answers to general questions concerning underlying processes and general laws that could be applied cross-culturally (Childe 1929; Piggott 1954).

Such accounts offered few explanations on the system or structure that produced the artifact. This is exemplified by O'Kelly's unwillingness to address the 'nature of the society' in the Boyne Valley (Binford 1983:16). Rather, stylistic analysis was undertaken for the purpose of placing specific artifacts, quite often ceramics, into a classificatory scheme that showed their relation to, and distance from, a central design, an original.

Gordon Childe was highly influential, and indeed instrumental, in the development of broad generalized schema for European prehistory (Childe 1929;1940;1949). His views on diffusionism were predominant, with the result that during the 1930's and 1940's the 'megalithic missionaries' were seen as responsible for initiating the building sequences evidenced around Western Europe. Thus, by applying Childe's diffusionist model the prehistory of Western Europe was traced back to the Eastern Mediterranean. This period in archaeology tackled broad questions of social organization by attempting to delineate economic

structure, kinship, trade and other cultural systems. This represented a step forward in attempts to interpret the spread of megaliths.

Diffusionism

Culture-historical archaeology, also known as "traditional archaeology" (Clark 1948; Childe 1940, 1950; Piggott 1954), assumed that the consistent spatial distribution of similar artifacts could indeed represent a culture, and that cultures were ideologically and behaviorally homogeneous. One of the basic concepts of traditional archaeology was diffusion, related as well to the idea that major innovations occurred but once. These theories assumed that patterns in the archaeological record were largely the result of normative behaviour of particular social or ethnic populations. Where changes in the organizational structures of societies were noted, they were attributed to external influences, folk movement, invasion or diffusion.

Diffusionists concluded that the origin of the passage-graves was to be found to the East along the Mediterranean. For example, Childe embraced and promoted the concept of *ex Oriente lux* and similarly looked Eastwards to the Mediterranean for the springboard of megalithic monuments, placing their origins in Mycenaean Greece (Childe 1925).

These conclusions of the diffusionists were due in part to a lack of reliable dating techniques. Willard Libby's Carbon 14 isotopic decay technique, developed in the late 1940's (Wenke 1990:58), demonstrated the early erection of Irish megaliths and therefore ruled out diffusion

from the Eastern Mediterranean. It became clear that certain types of megaliths in Ireland pre-dated their European mainland counterparts as well as displaying insular styles unique to Ireland. If one assumed, as Childe and others did, that the origins of the megalithic culture came from the East, then Ireland, at the extreme West of Europe would be seen as the last place for certain types of megaliths to make their appearance. However, this is not the case and there appear to be several different, sometimes overlapping megalithic traditions in different parts of Western Europe. Once these new dates were available, it became necessary to construct new theories to explain the origins of the megaliths. The passage-grave traditions in Iberia and in Brittany were both demonstrated to date back to the very beginning of the fourth millennium B.C.E. and possibly beyond. The revision of dates therefore for Western Europe still left the door open for diffusion of passage-graves from that part of Europe into Ireland. Irish archaeologists by and large accepted an Iberian origin and a Breton influence (Eogan 1986: O'Kelly 1981) as the most plausible area for the inspiration of Irish passage-tombs. This was done on the basis of morphological similarity in the construction process and on the megalithic art and artifacts.

Regardless of whether a completely internal development of Irish passage-graves was entertained, or an early fourth millennium B.C.E. diffusion from Iberia, the proof of the antiquity of Irish passage-graves ended their bondage to Phoenician, Danish and Mycenaean origins.

Suddenly, and decisively, the impressive megalithic tombs of Western Europe are set earlier than any comparable monuments in the world. There are no stone-built monuments anywhere approaching them in antiquity.

Perhaps even more remarkable, some of the underground burial chambers, with their roofs of stone, are presented entire, so that we can enter them and stand inside a stone chamber which looks today just as it did more than 5,000 years ago. (Renfrew 1973:120)

The revised chronology for European megaliths inspired a greater interest in their study, and questions concerning the relationship between Mesolithic hunter-gatherers and Neolithic passage-grave builders gained added importance. This stemmed from the fact that if the beginning stages of megalithic construction in Ireland went back to the fourth millennium B.C.E., account must be taken of the role of the Mesolithic inhabitants. Coupled with the expansion of anthropological departments in universities and a growing national interest in the achievements of the first builders, the study of Irish megaliths developed rapidly. The development of cultural chronologies for the European Mesolithic and Neolithic, and the continuing accumulation of artifacts and discovery of sites, were accompanied by an expansion of anthropological and archaeological institutions. The students of the antiquarian scholars looked at the archaeological record in a different light. The acceptance of the longer chronologies and the advances in theory demonstrated that previous explanations often rested on flimsy and subjective interpretations. This led to a proliferation of new theories and approaches which in turn resulted in new understandings of megalithic monuments.

The demise of traditional archaeology with its reliance on concepts of diffusionism, functionalism and positivism actually left the megalithic image quite empty. The chronologies that tied Western

Europe's thousands of megalithic sites to Mediterranean origins had lost favour due to the new dating techniques and the classification of complex structures such as Dowth or Knowth, which had been defined simply as mortuary monuments, were no longer accepted. This set the stage for the influence of the New Archaeology of the 1960's and 1970's in the study of megaliths.

New Archaeology

The contrast which new archaeology sought to establish between cultural and processual archaeology is between the idea of society operating as a homologous totality, held together by shared and socially determined beliefs, and society as a heterogeneous organizational system. Both approaches would seem to think of societies as bounded entities where, in the ideas of processual archaeology, the degree of internal heterogeneity marks the level of the social system's organizational complexity (Barrett, 1994:157).

Briefly stated, there was a growing reaction to the perceived failure of traditional archaeology to understand cultural phenomena in the absence of adequate theoretical frameworks. In addition, traditional archaeology was accused of limiting itself to historical inquiry and "thereby neglecting the ultimate and unifying goal of anthropology, which is the explanatory understanding of general cultural processes" (Gibbon 1989:65). The chief proponents of the New Archaeology were J.R. Caldwell (1959) and Louis Binford (1962; 1965), whose writings heralded a break with traditional archaeology and outlined the template

for what would become the 'New Archaeology' . The archaeologists who espoused the New Archaeology viewed the relationship between technology and environment as central elements in determining human behaviour and culture systems. Such explanatory models took the form of ecological determination in cultural systems, and explained changes in cultures as being mediated through cultural processes. The neo-diffusionism of New Archaeology and its homeostatic approach to society indicate that the break that it sought and claimed from traditional archaeology was sometimes more apparent than real, leading Trigger to see in the New Archaeology a "continuation and intensification of the functionalist and processual trends in American and Western European archaeology since the 1930's" (Trigger 1989:295).

This new search for explanatory models claimed to take account of regional developments, individual agency, and general covering laws of social development. Despite perceived similarities to older models, New Archaeology gained favour in North America, but made little headway in Europe. Its introduction in America was coupled with the refinement of scientific techniques for not only dating but for analyzing genetic, dental, soil and weather patterns due to advancements in osteological and pollen analysis studies (Whittle 1985:223). It became possible for archaeologists to claim scientific certainty for prehistoric dietary preferences, to establish reasonably secure chronologies, and to formulate, sometimes with the aid of ethnography, general laws and principles in social dynamics and their analysis. Thus archaeological investigators since the 1960's and 1970's have been equipped with scientific techniques unknown to their predecessors.

In this light and with these abilities, New Archaeology asked different questions. Rather than Childe's "megalithic missionaries", local origins for Irish megaliths were considered and the question of their significance branched out into relations between mortuary practices, subsistence, resource competition and social structure (Goldstein 1981; Chapman 1981). This move beyond the formal analysis of traditional archaeology aided in the compilation of local chronologies and vertical analyses of historical sequences. These, aided by the emergence of mature botanical, physical, and other forensic archaeological fields, have given a more detailed picture of the connectedness and centrality of megalithic monuments to society. In Britain the New Archaeology received a less than lukewarm welcome, and the post-normative archaeology practiced there, with regard to the megaliths, was an admixture of processual archaeology and mortuary inquiry. New questions were posed and alternative assumptions adopted:

What happens if we assume that variation in mortuary practices is not necessarily related to religion? What if we go beyond the purely *formal* study of mortuary practices (e.g. numbers of individuals, inhumation as opposed to cremation, individual as opposed to collective burial) and look at the *processes* that might have given rise to these forms (Chapman 1981:72).

Some of the chief criticisms levelled at the New Archaeology included its uncritical acceptance of positivist epistemology as a means of gaining knowledge, its stress on Functionalism to the detriment of understanding adaptive strategies to an environmental milieu, and its attacks on studies which consider social relations and cognition. New

Archaeology labeled post-processual approaches which asserted the primacy of social relations, cognition and intentional dispositions as 'palaeo-psychology' which was confined to the unsubstantiated realm of pure speculation (Miller & Tilley 1984:3).

In Ireland the debates concerning interpretive models took a distant second place to the excavation of the numerous important sites that had been left virtually untouched by an archaeology that was only recently beginning to emerge as a more coherent science. In 1962, M.J. O'Kelly began full-scale excavations at Newgrange which lasted until 1975 and which culminated in a restoration of the remarkable passage-grave (O'Kelly 1982). Throughout the 1970's more excavations took place and more became known about the extent of passage-grave construction in Ireland. Works such as Herity's voluminous *Irish Passage Graves* (1974) have gone a considerable way toward demarcating the distribution of passage-graves and have attempted to outline the social significance of these monuments. Such explanations, however, were undertaken without recourse to a specific model which would interpret the use of space and symbolic representations of power. The publication of Eogan's excavations at Knowth (Eogan 1968;1986) revealed a passage-grave that equalled Newgrange in size, complexity, and art. The great mound of Knowth was revealed to be very similar to Newgrange not only in structure but in date, positioning (1.3 km to the northwest) on top of a hill, and in gravegoods. A curious feature at Knowth is seen in its two passages, as opposed to the more common singular passage in Irish passage-graves.

Neo-Diffusionist and Anti-Diffusionist Explanations

In Western Europe during the 1970's the realization that the megaliths stretched back into the Early Neolithic led archaeologists in either one of two directions: neo-diffusionism or anti-diffusionism. Both dealt with process and both continued to overlook spatial symbolism as represented in the tombs' construction. Again, the labels attached to these archaeologists should not be interpreted as an all-consuming adherence to solely an anti-diffusionist, post-processualist, or other paradigm. Although quite often the particular archaeologist cross-cuts several approaches, the term anti-diffusionist here relates to an explicit work that postulates local evolution of megaliths (Renfrew 1976; Chapman 1981). As a result, such works are also forced to explain the reasons for the origins of megaliths in their particular contexts.

Renfrew (1976) argued for independent origins for megaliths in several areas of Atlantic Europe (as opposed to the Eastern origins postulated by the diffusionists). He related the appearance of megalithic monuments to population stress, caused by the introduction of farming techniques, and farmer-colonists, to an already significant fisher-hunter population base along the Atlantic Seaboard. Renfrew's model interpreted the numerous megalithic structures in Southern Britain as territorial markers for a segmented society "independently inspired in a social and economic context" (Renfrew 1976:204). Renfrew went further and attempted to demonstrate that in the Middle to the Late Neolithic of Southern Britain the megalithic 'areas'

displayed patterns of peer polity interaction (Renfrew and Cherry 1986). With Cherry, he developed a model that viewed the megaliths and cursus monuments as internal media, whose spread was accounted for by "competitive emulation" (Renfrew & Cherry 1986:7).

Chapman (1981) shared similar views with Renfrew but called for a wider context in analyzing such structures. His approach somewhat differed in his concentration on natural resources, in conjunction with population pressure and the resultant appearance of megaliths as "formalized mechanisms for the transfer of property" (Chapman 1981). Broader subsistence changes, settlement patterns, inheritance rights and economy were seen by both Chapman and Randsborg as a more profitable route for the understanding of megaliths (Chapman 1981).

Scarre, another anti-diffusionist, added an ideological element to the erection of megaliths in Western Europe by including a 'possible function' for the monuments as serving to distinguish the natural from the human world and as a more general reaction to new subsistence practices in a Mesolithic-Neolithic transition (1983:277). Saxe, (1970) also explained megaliths in an anti-diffusionist model. He placed them at the centre of resource allocation, whereby they legitimated access to limited resources.

Anti-diffusionist accounts such as these may in some ways may be seen as an inevitable reaction to the demise of diffusionist theories upon the introduction of new dating methods. The concentration upon local developments forced these works to examine in more detail the broader changes in processes during the Neolithic. The explanatory

models offered, however, by and large failed to consider Mesolithic continuances. The application of such theories to the Boyne Valley, although having some merit (a longer and local chronology envisioned for the megaliths), do not examine the specific cultural and political context of each individual site. Instead, anti-diffusionist models concentrate upon general processes of agriculture and population. Relating megaliths to markers of socio-economic tensions removed them from their "historical context in Western Europe, and from the domain of the ideological" defined by Hodder as "meaningful social action and negotiation within specific historical contexts" (Hodder 1984:52). Further problems with the model of Renfrew and Chapman which emphasized resource competition and population stress are, firstly, that it is quite difficult to identify such stress or resource competition, secondly, there is no evidence that these challenges were greater than in Central Europe (Hodder 1984:52). However, if one sees the megaliths as facilitating cooperation in a farming economy that led to greater populations, an increase in population would be seen then as an "effect rather than as a cause of social change" (Scarre 1983-84). A further issue raised by Hodder is the weak link between burial, megaliths and the processes described. For example, specifically how did megaliths help to control population stress, and why megaliths in particular?

Another interpretive angle from which to approach the understanding of megaliths is loosely defined as neo-diffusionism. This theory envisages a broad Western European reaction to the diffusion of agricultural ideas and techniques, not necessarily a movement of peoples on a large scale. Beyond their diffusionist nature, the frameworks of neo-diffusionism offer a credible argument in portraying megalithic

communal tombs as social centres. They suggest that the megaliths, and in particular the collective tombs, of Western Europe, Britain and Ireland, were not so much territorial markers erected under population stress as they were an organizational nexus. The introduction of cereals required an ability to mobilize a labour force on a regular basis. This was accomplished by means of communal tombs that were overlain with ancestral commemoration perhaps as an inspiration or guarantee of some form of social solidarity (Sherratt 1990:149). Sherratt draws attention to the general absence of monumental funerary structures in Central Europe, where the local economies were already organized around settlements, which he relates to abundant loess zones. This differs from the early Neolithic of Western Europe where settlements were "insubstantial and dispersed" (Sherratt 1990:149). In such settlement patterns, such as that in Ireland, these structures served to replicate the central organizational loci of Eastern Europe .

If Sherratt's theory is to hold true for Ireland, then a geographical analysis of the actual locations of passage-tombs in Ireland would be expected to demonstrate that there is indeed a central character to their placement. In so far as the 300 passage-graves of Ireland are in fact located in similar positions, this appears to agree. The passage-graves are adjacent to good soils, and their usual placement on top of surrounding ridges and plateaux also agrees with such a theory. The role that Sherratt envisions for the megaliths in Western European communities is that of a social mechanism facilitating political harmony by recreating Central European Longhouses:

In the immigrant Neolithic societies of Central Europe, this continuity was assured

through the existence of the village community as a residential unit, crosscut by family ties and made up of individual households occupying substantial longhouses [...]. To reproduce this social mechanism in the absence of large, stable residential units required the invention of some equivalent mark of continuity and common descent (Sherratt 1990:149).

Further to this idea of the reconstruction abroad of *Linearbandkeramic*-type¹⁴ longhouses, whether by mainland immigrants, or inspired by a local need to adapt such organizational structures, is the morphological association of Central European early Neolithic longhouse forms and the megalithic communal tombs. If the neo-diffusionist postulations above are accepted as correct, then the passage-graves of the Boyne Valley do in fact represent the efforts of an emergent cereal-cultivating population which was undergoing increasing sedentism. This sedentism remained dispersed, on tracts of land that might represent original Mesolithic hunting boundaries, or newly settled, and possibly contested, areas which came under population stress. The purpose, and functions, of megalithic constructions are therefore seen to be of a social-bonding nature, distantly equatable with an administrative centre. This makes them an applicable area of study for a social archaeology that can attempt to analyze and describe this role for these monuments in constructing a social, or even ethnic identity.

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¹⁴ *Banderkeramic* (linear/epi/late) is the type of pottery found in many European countries. It has been used in some countries to denote local cultural sequences, for example in France the *Late Banderkeramic* (c.3900-3600 bc) (Scarre 1983-4:9).

Interpreting passage-graves as what we have called social charters, means that their significance goes beyond solely technological explanations and instead they become indicative of superstructure, where we may study the political organization of early 'farming' communities in the Boyne area. A further benefit in seeing passage-graves in this light is that as markers for dispersed farmsteads, their 'fringe' placement might explain the absence of any settlement evidence from around their premises. A location adjacent to favoured tracts of land might then be expected for the passage-graves. The locations of passage-graves, the vast majority of the 300 or so in Ireland, are by and large close to some fertile land, and always on top of a local vantage point. Indeed it might not be too speculative to view the three major passage-tombs of the Boyne valley as an administrative capital, perhaps not located too squarely on any one groups' tract of land to avoid the appearance of bias. The placement of communal monuments in Southern England, though "not well understood in detail" (Whittle 1985:235), are seen to be on land that was sporadically cultivated yet distinct from the most fertile areas. One interpretation of this pattern raises the issue of marginality and land use prompting questions of stress and competition.

Do these represent marginal areas where pressure and competition between communities was most acutely felt? Or if the monuments were part of the ideology of [a] more differentiated society, were they deliberately placed on the fringes of settlement as a further masking of social reality in some way? (Whittle 1985:236).

What the theoretical models of diffusionists, anti-diffusionists, neo-diffusionists, and the strands of processual archaeology that permeate them, fail to do however, is to take the form of the passage-graves into account beyond representations of morphological similarity with early Neolithic Central European houses. This link is somewhat vague in *Bandkeramic* houses, as are some of the similarities in construction. The longhouses of *Bandkeramic* settlements were neither as large, as complex, as durable or as significant as passage-graves were to Neolithic settlements in Western Europe. Furthermore, unless it could be shown that these houses also played an active social role in the power structure of Central European communities the links between house form and passage-graves remain tenuous. An active role in social structure for megaliths was not a pivotal part of processualist explanations because they do not see them as instruments of power and agents of change, but as results of change and powerless. According to Hodder, these problems arise because of the artificial split between history and process.

The processual explanations could not cope with the richness of information relating to the things to be explained. Since one had no idea what, for example, the shape of the tomb meant in its particular historical context, one could have absolutely no idea of how it might have functioned (Hodder 1984:53).

Archaeology had little success working within a historical and cultural framework because symbolic associations and meanings were discussed with limited reference to social process, function, or

legitimation. New or processual archaeology "tends to regulate ideology to an epiphenomenon of the assumed primacy of functional contingencies and does not adequately consider the particular symbolic meanings of the monuments and rituals" (Hodder 1984:53). Without consideration of the cultural context, one cannot hope to understand the effects of past social actions.

From the late 1970's, archaeologists concerned with megaliths concentrated on an approach set in a multidimensional framework whose aim was to highlight the relationships between mortuary practices, aspects of social organization, and control of resources (Kinnes 1981, Chapman 1981, Renfrew 1986). Once such objectives were laid down, work began on re-evaluating Western European megalithic monuments, their geographical and chronological distribution and their relationship to local populations. Parallels were drawn between the availability of land, agriculture, population, social complexity and disposal rites (Renfrew 1976)¹⁵. The answer to the 'megalithic problem' was thought to be found in understanding the complex relationship between the adoption of agriculture and the resulting pressure on land resources, which resulted in a formal structure of ancestor worship as a means of establishing ownership and transference of property rights.

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¹⁵Renfrew suggests that the spatial distribution of contemporary phenomena, a material pattern of artifacts and sites, directly reflects the spatial organization of the activities which gave rise to those phenomena (1976:158).

The dissatisfaction with functionalist, processualist and positivist frameworks may be quickly described as follows. Functionalist accounts of the past hold to an organic analogy of society which strives for minimum dislocation. In such a model the function of a given phenomena is the role it plays in establishing harmony in society (Hatch 1973:198). This 'organic equilibrium model' of society pioneered by Durkheim (1895) presupposes "the existence of a dimension of social phenomena above the level of human volition and operating according to principles located outside the human mind" (Hatch 1973:202). Another area of contrast between processual and post-processual archaeology was the view of the individual and of individual agency, which were seriously underestimated in functionalist explanations of archaeological materials. When change is seen to come from without, and when general processes such as economic and technological change are viewed as a collective supra-volitional biological responses to external events, then the individual and non-utilitarian phenomena remain unexplored and unexplained. It was these criticisms that led to a contextually based post-processual archaeology (Patterson 1993:35).

Summary

The need for a contextual analysis of specific sites arises from the incompleteness of investigations that employ a processual mode of inquiry. Such works that relate the appearance and continuity of megaliths to general principles have failed to take context and history into account and have thus not offered any role for megaliths in the

social structure. Analyses that have seen the construction of these monuments in Western Europe as resulting from demographic (Renfrew 1976) tensions, or have viewed them as funerary (Chapman 1981) deny these monuments the central role we believe they played .

Rather, there must have been an a priori acceptance in the Neolithic, either as a result of parallel developments or diffused ideas, that within concrete constructions was manifested political force. Today not many would dare to build a church within which to hold WWF wrestling, nor are certain actions allowable in such buildings. Therefore we see the expressions of the body-politic, perhaps a collective egalitarianism, as being accepted in the form of, and expected to manifest itself in, such constructions. A lasting and therefore legitimizing demonstration of a society's ultimate power: that over, and of, human labour.

Despite the renewed interest and increasing number of studies of passage-graves in Western Europe, one element was still missing, the application of a theory of space that would relate megaliths to social structure. The use of space had been studied in many other contexts (Rapoport 1969) but had not been applied to the megaliths. This is curious when we consider that the vast majority of the effort that went into passage-graves was beyond any utilitarian use. Further, the special alignments of the megaliths and the investment of art in them marks them out as examples of ritual space that requires a programme of investigation. Rather than one small arrowhead or a finely executed image on a cave wall, the scale of megaliths are expressions of a communal expenditure. Therefore, any theories that would attempt to

analyze such spatial and artistic demonstrations must be applied on a communal scale. This brings us to the 1990's in which the new post-processual social archaeology introduced yet more developed strategies of inference from material remains.

Chapter 4

SOCIAL ARCHAEOLOGY

Building an understanding of the situated relationship between social practice and material conditions is not an option, it is *the* intellectual demand of archaeology (Barrett 1994:33).

The theoretical debates in archaeology in the early 1990's have provided a profusion of theoretical views concerning material remains and their interpretation. Central to these debates has been the extent to which archaeologists may infer or read the social past from material remains. As previously stated the key theoretical construct informing this thesis falls under the rubric of social archaeology, with an emphasis on the historical contingency and cultural context of the archaeological record.

The development of the loosely-knit frameworks of social archaeology which sought to create a 'Prehistoric Sociology' is best interpreted as a loosely grouped theoretical approach that eschews the functionalism and systems theory of New Archaeology and allows for the inference of supra-forensic symbolic meanings inhering in artifactual remnants. The attempt to do for prehistory what sociology and other social sciences can do for contemporary or historical societies is described as:

the ability to describe and analyze the social systems of prehistoric peoples by means of a careful and responsible application of the concepts and insights of the modern social sciences to ancient societies, most of which can only be known in the first place from the traces they have left in material remains (Smith 1989:117).

Social archaeology then, with its adoption and inheritance of elements from post-processual and New Archaeology approaches, addresses this problem of inference from post-forensic evidence. Social archaeology approaches artifacts as ontological codes within which are held symbolic representations of the social order. "The concern must therefore be to examine the role of material culture in the ideological representation of social relations" (Hodder, 1982:10).

Redman (1978) attempted to outline a programme of investigation for social archaeology. He found strands of this approach in such early works as Childe (1935), Hawkes (1954) and Clark (1957). However, Redman concluded that "social archaeology can be more accurately characterized than defined" (Redman 1978:6). His characterization included: the use of explicit models, the integration of single cause and multivariate explanations, the recognition of a broader data base, research into the importance of individual and normative factors in society, and the application of quantitative techniques and simulation models (Redman 1978:9).

It is in the interpretive strategies employed by archaeologists that the epistemological debate is most evident. Social archaeologists such as Hedeager (1992), Barrett (1994) and Hodder (1982: 1984), reject

the premises of strictly functionalist interpretation of artifacts. Rather they require an examination of material remains as salient and contributing factors to developments in society, not simply as reflections of that society. The archaeological record then, and the passage-graves, are representations of specific social strategies in which they played an active role.

The understanding of an artifact is crucial to how one visualizes, describes or interprets past peoples. Social archaeology attempts to recreate the internal social relationships of prehistoric societies. It no longer suffices to identify chronology, stylistic influences, or even the functions of a given artifact. What is sought in recent archaeology are the symbolic, culturally contingent and historical determinants, social associations of artifacts, and an appreciation of the artifact as produced (i.e. the process, historical and contemporary, that led to the production of a given artifact, and the knowledge embedded in this process of production).

To concentrate on the relationship between material culture and behaviour opens up topics for deep contemplation concerning the interpretation of cultural meanings of specific artifacts, and, to put it another way, artifacts acting back on cultural meanings and behaviour. Whether we view material culture as a passive by-product of behaviour or as an active intermediary and symbolically-coded system connecting actions and ideas, will have profound consequences on how we interpret that artifact and the social relations of its makers.

Some archaeologists are critical of the amount of inference in post-processual and social archaeology, arguing instead that we should limit descriptions to the observable. Binford, and other empiricist archaeologists criticize Hodder and the 'European' school of social archaeology for applying "*post hoc* accommodative arguments" within which a particular past is already 'known' and the archaeologist then selects those facets of the archaeological record which accord with his or her point of view.

If historical events, the social structure of a community, its beliefs and convictions are not reflected in archaeological sources or are not contained within them, we must acknowledge it as such and limit ourselves to demonstrating that information which is really obtainable (Malina & Vasicek, 1990:112).

This idea naturally raises the question of what we deem to be observable, that is, whether we can see only bones and stones in the passage-graves, or in fact whether we can in some sense 'see' the social structures behind their erection. To refuse to attempt symbolic interpretation with the aim of understanding social structures as mediated between individuals and groups through agency and their context, is to see material remains as static and devoid of an active role in representing such actions and motives. This is where social archaeology differs abruptly from traditional archaeology.

In contrast to the pessimism of traditional 'normative' archaeology which despaired of being able to specify supposedly non-material aspects of society (religion, beliefs, politics), a fully social archaeology became

accessible according to a framework permitting a mechanistic relationship between society and environment with material culture mediating as an extrasomatic means of adaptation (Shanks & Tilley, 1992:117).

We are forced sometimes to make educated assumptions and to make bold inferences from 'fragments from antiquity' (to 'facts' in the present), to go beyond forensic limitations and to establish credible means of inference.

Clearly knowledge claims about *past* matters of fact are not reducible to, or exhaustively confirmable against observational data in the manner required by a strict empiricism: they inevitably extend beyond any observational evidence that could be adduced in their support simply because we lack observational access to past events or states of affairs. If empiricist standards are maintained, genuine knowledge of the past is unattainable; researchers committed to historical or anthropological ends must be prepared to embrace speculation as a necessary evil or else limit their ambitions to descriptive systematization of this data. (Wylie, 1989:19)

The inference that social archaeology attempts is not purely speculative but rather an attempt to complement scientific analysis. In the case of passage-graves we therefore incorporate social extrapolations into an existing corpus of archaeological evidence.

One main difference between Ireland and its megaliths and, for example, the Sumerian and Mesoamerican cases, is that written, or carved communications were located, and deciphered, in the latter two examples. Therefore, the thinking, purposes, practices and meanings were made clear in the builders' own words or those of their contemporaries and the physical remains backed up these understandings. Such a text is not available from the Neolithic in Ireland (although Brennan (1980) claims that the ubiquitous triple-spiral (Plate 2 & 3) represent calendrical measurements). However, the Sumerian and Mesoamerican cases show that the physical remains can confirm the social realities and meanings of the societies as captured in the written remains. These examples confirm that physical remains hold keys to social meanings and structures. Therefore, although no writing is found in Ireland, the physical remains can and should be analyzed and interpreted to glean from them what social realities they can reveal.

Adaptation to a physical environment is accompanied by adaptation to a social environment (Bennett, 1976:245), and as society in the Boyne Valley underwent monumental change, the passage-graves acted as unifying and legitimization centres. In Mexico, the proto-Olmec erected massive public architecture during the Bajío phase, 1500-1350 B.C.E., a period in which populations were growing and agricultural methods intensifying (Adams 1991:49-50). This same scenario of the role of monumental architecture in changing social relations is played out in many areas. The Sumerian Ziggurats and Egyptian pyramids are the best known examples of monumental architecture, and with the fantastic 'temples' of the Aztec, are an

example of the universal nature of society's urging, perhaps its need, to consolidate itself through monumental architecture.

The changes between a hunter-gatherer, a horticultural and an agricultural subsistence mode require massive changes in the power structure of society. The emergence of collective burial in the transition to agriculture is well attested to (Childe 1956; Piggott 1954) and it is our belief that the collective burials in Ireland, in the form of cremation, were only one part of an adaptive strategy that consolidated the new social structure. The placement of cremated remains inside passage-graves must therefore be seen as not the prime cause for construction, but rather as a logical extension of the collective power deposited in the community and reflected in monumental architecture. Social archaeology allows the interpretation of such ideological expressions from communal structures.

Binford and the New Archaeologists denied the "relevance of psychological factors for understanding prehistory" (Trigger 1989:302). Binford agreed with O'Kelly's approach to interpreting the social dimensions of excavations at Newgrange:

Professor O'Kelly was quite happy to consider how the great megalithic structure at Newgrange might have been built, what it might have looked like during its period of use, and even what events might have modified the archaeological record into the form observed at the time of excavation. All these inferences were made tenable by his linkage of archaeological observations to principles and laws of causation drawn from the sciences of mechanics, physics, and the

related fields of applied engineering. Of interest, however, *was his reluctance to consider the nature of the society in which the site had functioned*. [emphasis mine] (Binford, 1983:16).

Conversely, Hodder argues that we can, and indeed must, identify structures in relation to meaning, practices and change (Hodder 1982:10; Hodder 1986:9), and set them in the historical cultural context. To do this, we must attempt to elucidate the possible cultural contexts and the culture-specific meanings invested in these structures. It is towards this goal that Hodder presents his concept of the "domus" (Hodder 1990) which he associates with the construction of Neolithic megalithic, and non-megalithic (i.e. long mounds and barrows) structures in Britain with the temporal representation of culture over nature (Hodder, 1990:245). In making this connection, he relates the ideational and psychological facets of a culture to architectural forms and material remains.

The domus involves practical activities carried out in the house, food preparation and the sustaining of life. But it is also an abstract term. Secondary, symbolic connotations are given to the practical activities, leading to the house as the focus for symbolic elaboration and to the use of the house as a metaphor for social and economic strategies and relations of power (Hodder 1990:44-45).

This entails a symbolic reading of the archaeological record which is essential for prehistory and had up to the advent of post-processual archaeology, lain dormant.

The need to put history and cultural context in the foreground is also a central element in social archaeology. "Excavated artifacts are immediately cultural, not social, and they can inform on society only through an adequate understanding of cultural context" (Hodder, 1982:10). It is to this end that we undertake an examination of the morphological characteristics of the Boyne passage-graves. The construction of space, the process of erecting megaliths and the finished product of many individual stones conjoined into one, all reveal aspects of the society which built them, its context and some of its values. The construction of one 'community' structure from many individual pieces serves as a metonym and metaphor for the unification of individual farmsteads or individuals into one 'corporate' whole.

The standard assumption of archaeology in its formative period was to ascribe communal and collective burials primarily to religious beliefs (Daniel 1963, Piggott 1965). Social archaeology now asks whether or not this relation to spiritual beliefs is true or is even the sole reason for such buildings. In the 1970's archaeologists demonstrated the relationship between social organization and the disposal of the dead (Saxe 1970) which called for a contextual and site specific analysis of such 'disposal' in order to understand what burial signified. We argue that the location of the burials was equally, if not more, important. This will be demonstrated in the following analysis of space in the Irish megaliths.

Our goal, then, is to seek to go beyond the traditional analyses, such as they are, concerning the Neolithic people of the Boyne Valley

and their social structures. This has entailed some review of past approaches and present understandings of Neolithic society in Ireland, and to some extent in Western Europe. It also has involved an examination of the epistemology of social archaeology. It now remains to apply this interpretive model to the use of space in the Irish Neolithic monuments and in reading the power structures apparent in them.

Chapter 5

SPACE AND IDEOLOGY

Introduction

The monuments both deployed and captured an ancestral history. Acting as mnemonic markers they coded historicity and sacred power in particular places, creating a hierarchy of valued points in the landscape on pathways channeling movement through it and sustaining knowledge of it. This logic, involving re-ordering of the visible, constituted a vital component of power relations during the Neolithic, serving to differentiate between those who were included in the knowledges required to decipher the landscape and those who were excluded (Tilley 1994:204-205).

The spaces that people construct tell us much about them. In their simplest form, dwellings can indicate the subsistence mode of a community, while other remains may have perished. The chronology of occupation can make known the seasonal round, as in Iroquois fishing camps or Inuvialuit caribou trap-sites; likewise, chorological analysis can tell us the soils preferred and what this means, as in the Huron preference for gravelly soil and its conduciveness to corn cultivation (Trigger 1969). Similar information regarding positioning on hill tops and river junctions is indicative of defence or trade (Trigger 1980:79-83). Unearthing permanent Neolithic houses right on the shore in Skara Brae in the Orkneys induced Childe to pronounce a fishing subsistence for this community long before the location of fish remains in this site demonstrated the point (Childe 1931; Childe 1940:84-88).

The materials employed in the construction of buildings that are utilitarian or ritual, permanent or fleeting, provide us with an abundance of information. The distance travelled to secure such materials indicates a people's transportation, organizational and communication abilities. The architectural design of structures allows us to peer into the very technical creativity of past peoples, and to appreciate the skilled crafts and capabilities (e.g. mathematical) of the community itself.

Tool design can reveal the actual sources of the materials, which were often fashioned from the remains of local animals. Therefore we can determine, for example, the quantity of Irish giant red deer in the vicinity, the rate of success in hunting them, and their importance to the community. Other animals used can also indicate dietary preferences and availability (Barker 1985:118). Indeed, tools used in the construction industries of prehistoric societies leave behind numerous statements. They tell us the ability of a community to shape and alter its environment. The *Law of Bidirectionality* (Charles Laughlin, forthcoming) provides an inside look at how the chorus of technology acts back on the community, and vice versa. Briefly, this law states that when a new technology is invented, there are ramifications that go well beyond the actual physical utility and results of the application of the new technology. An example is offered in the moon landing of 1969, in which the ability of the 'tool' may have little impact on the general public immediately but our worldview is forever changed by what it has made possible. Bidirectionality shows how

technology brings the moon to us, opens up new physical and psychological frontiers.

In the Neolithic, the erection of edifices that encapsulated ideological beliefs and technical abilities affected the worldview of those who built and utilized them. No longer was the community comprised of fleeting wood structures, and no longer did ritual and political pronouncements and ceremonies rely on a dispersed word-of-mouth communications system. Now, social order, social bonds and laws, and community gatherings were solidified in the very earth, from the very earth. Such magnificent projects and their results must have produced profound reactions, which was perhaps exactly what was sought. Throughout history, in fact since the days of megalithic architecture, commemorations of historic events, places and people have been expressed in stone. Therefore it is vital to imagine the effects of the first appearance of such structures and the role that they played in the social structure of Neolithic societies.

Beyond archaeological theoretical orientations there is a simpler and more ontological aspect of megalithic passage-graves: they are architectural forms. Accordingly, we must now examine the concepts behind such structures, and by extension what they meant to the people who built them. Today when we enter an ancient architectural setting, we may indeed marvel at the intricacy of its construction and at its survival over the millennia. We may even acknowledge the techniques employed in the absence of 'modern' equipment. However, in order to fully comprehend what the construction of massive monuments meant to Neolithic people, we must in some sense make a pilgrimage into the past

as it was experienced by those who dwelt there. This point is important if we are to understand the cultural context of a structure, and to succeed in understanding the meanings, reactions to, and significance attached to megalithic structures. We must therefore realize:

[T]hat architecture and settlement patterns both reflected certain aspects of a culture's value system and also served to reinforce those values upon the individual members of that culture (Thompson 1983:116).

As Thompson has pointed out, the construction of monuments served both ideological and utilitarian functions. The latter are more clearly evident: the passage-graves provided shelter, acted as grave and boundary markers, sheltered bones, and predicted solstices. Yet what did the passage-graves signify on a psychological level? They refer to symbolic codes, to internal and referential meanings that were known to the people (or at least to certain people of the time). It is on such points that we must concentrate, especially when dealing with architectural forms that served supra-utilitarian needs. We must consider the possibility that the domestic conception of power in the Irish Neolithic was realized and expressed principally in the development and elaboration of graves into monumental tombs.

In a sense, monumental building was the principal means available to domesticated people for having and demonstrating power... (Wilson 1988:121)

How does one uncover psychological attitudes and referential cultural and contextually-specific values from 6.000 year old stones? As discussed above, archaeologists differ on the question of whether inference of motives can properly form part of archaeological inquiry, or whether material remains are simply the residues of past action which, unless obviously connected to some known contingency, such as written texts, context-rich finds etc., can tell us nothing more. However, social archaeology takes the approach that symbolism is recoverable from physical remains:

The relationship between the expressed motivations and reasoning of the agents, and the physical consequences of their actions may often seem arbitrary and thus beyond archaeological recovery. This is a rather peculiar assumption, given that knowledge and motivations are created within, and by reference to, given material conditions. If we recognize that knowledge is implicitly involved in action, then we may wonder why something of that knowledge is not also embedded in the material conditions and consequences of that action (Barrett, 1994:70).

Power in Space

By reading the actual spatial specifics of megalithic and non-lithic mega-monuments as a template for ideas, beliefs and concepts, we can attempt to infer various social institutions and structures from these spaces. This sort of interpretation fills the passages and recesses of Stonehenge or Newgrange not with passive mourners or participants in funerary ritual, but with specific social actors playing

out representations of their particular roles in society. Such 'political ceremonies' characterize social life by means of allocating symbolic significance to the dimensions of monuments: only so many persons could fit into the recesses, so many people outside, so many observers (role-players) kept away by the demarcation of the site boundary by means of a henge, standing stones, or other physical boundary markers. Such reenactments of social order might well have taken place at funerals or particular astronomical events and they might even have been a routine and frequent event.

The use of space to demonstrate social structures is not at all unique to passage-graves but may be seen in a wide variety of constructions. The cases of Olmec, Sumerian and Aztec communal monuments are examples (Abrams 1987; Wenke 1990). However, spatial demarcation and symbolic representation need not come in the guise of monumental architecture alone. The spatial distinction between Celtic Royal ringforts, places of collective assembly at Tara (Warner 1988:58), and the parking facilities allotted to senior management at a modern industrial complex, are examples on a smaller scale. Bodily movement and its spatial curtailment and allocation are prime arenas for the display and reinforcement of power, whether this be chimpanzees and sparrows vying for tree space or social actors in the Knowth passage-grave.

The spatial dimensions of the Newgrange passage, for example, were carefully and expertly chosen so as to represent important statements of and by the community. A line from one of the Gaelic epics might indicate a more spiritual association: a comrade of

Diarmuid, one of the legendary *Fianna*, takes the dead hero's body to *Brugh na Boinne* saying "Since I cannot restore him to life, I will send a soul into him, so that he may talk to me each day" (Coffey 1912). Such mythology serves to underscore the magical reverence associated with Newgrange, and with the use of space and stone.

A community statement is clearly seen in the roof-box orientation to the December 21st winter solstice (O'Kelly 1982:93-100), an important date for a farming community. This roof-box is located right above, and slightly in from, the front entrance of the passage at Newgrange (Plate 4). It was constructed by separating two lintels with dry-stone walling, thus leaving a gap between them that O'Kelly named the roof-box. This construction is unique among the known passage-graves (Herity 1974:27) and contributes to Newgrange's reputation among Irish passage-graves as a *tour de force* in megalithic tomb architecture (Daniel and O'Riordain 1964:21). It is through this opening that the sun's rays penetrate into the passage and illuminate the three inner recesses during the 19th to the 23rd of December. The roof-slabs and orthostats immediately surrounding the roof-box are some of the most richly decorated of the Newgrange megaliths. Two quartz blocks closed the entrance of the roof-box, which is the same width as the passage - one metre. One of these blocks was discovered "*in situ*" by O'Kelly (O'Kelly 1981:96). Wear marks on the lintel demonstrated that the quartz blocks were moved to open and close the opening on a number of occasions. This construction must have played a prominent part in ceremonies which occurred at Newgrange. Explanations for such a device might include agricultural notification of the end of the warmer and longer days. The roof-box, and indeed the entire passage-grave of

Plate 4

(Photograph: L. Kilmurray)

Newgrange, contains many astronomically oriented points to form a "dramatic part of a ritual celebration of the winter solstice" (Mackie 1977:68). Carnac and Stonehenge have also been demonstrated to contain astronomical alignments to the major equinoxes and to other astronomical events (Brennan 1980; Heggie 1981). This was echoed at Knowth, whose two passages also made important statements.

At Knowth, however, the orientation of site 1 suggests that there could have been two ceremonies at different times, the vernal equinox on 22 or 23 September. At these times the sun rises and sets directly in the east and west, while day and night have equal lengths. The spring equinox represents the beginning of the growing season, and the harvest would have been gathered at the autumnal equinox (Eogan 1986:178).

Further to such agrarian functions, the passages and the decorated orthostats around the main mound can be interpreted as representing the enactment of political and social ceremonies which reinforced the community and its beliefs. The passages therefore were not just expedient entrances to an inner recesses, but pathways rich in symbolic meaning and consequences. In this regard it is noteworthy to recall Eogan's remark (Eogan 1986:178-79), concerning external decoration, that at Knowth the only area undecorated on the outside of the mound was the abutment of site 13 which was built earlier and thus impeded any ceremony around it.

The journey from the outside world into the chamber space is thus a highly orchestrated one, in which the individual is constantly being made aware that he or she is passing

between radically different spaces, by being presented with symbols and by being forced to bend down or squeeze through particular parts of the passage (Thomas, 1990:175).

The passages of the Boyne megaliths were undoubtedly connected to deeply held beliefs of the community. The orchestration of participants within the tomb reflects the importance of space as an ideological expression by the Boyne Valley peoples. An example of these expressions could see the standing stones around Newgrange demarcating non-collective workers (or women and children), while the main body circled the mound in a demonstration of community. Attendance at the mound could re-assert abidance in communal institutions of redistribution, equal access to land and so forth. All of which took place around the resting place of the community's ancestors. The carvings on orthostats that faced each other at Newgrange, and were thus obscured from view, and the diametrically opposed, elaborately decorated kerbstones at the same site, and the diametrically opposed passages at Knowth, measuring 34 m and 33 m respectively, all reveal the importance of this spatial definition (Eogan 1986:36-39; Herity 1974:36).

The megaliths of the Neolithic can best be seen then as elements in a discourse of power, a way of expressing social relations. Using Hodder's "domus" idea (Hodder 1990) on a communal and less segmented scale, we may note the analogies between "domus" and passage-graves, and view the latter as central to the "creation of larger and more differentiated social units" (Hodder 1990). According to Hodder, the

spatial configuration of *Linearbandkeramic* houses are best seen as a discourse on power. He claims that "the creation of larger and more differentiated social units in the Neolithic took place through the concept of the domus" (Hodder 1990:219). "Domus" is defined as the representation, spatially, within houses and tombs, of the domestication of the wild, including death (Hodder 1990:246). The division of *Linearbandkeramic* houses into areas of two-thirds and one-third proportions, contends Hodder, is reflected in the similar demarcation witnessed in some passage-graves, where at the two-third mark of the passages there occurs down-leaning capstones and richly decorated orthostats, separating the passage into proportions of two-thirds and one-third.

What can the shape of the tomb tell us about the power structure of the society that built it? There are numerous avenues to explore here, mobilization being perhaps chief among them. Representations of power may be deduced in the manner of the tombs' orientation. The building of such complex structures and arrangements call for a specialized group of people who were fed and clothed by the labours of the rest of the population. The only alternative is to assume that the specialists were part-time, voluntary, or conscripted through a corvée labour system. In any of the preceding scenarios we may assume an allocating body which divided labour and produce.

Summary

An emphasis on space therefore reveals how archaeology can go beyond processual and normative explications of prehistoric societies and may read social arrangements from material remains. With the aid of post-processual models (Hodder 1982, 1984; Barrett 1994) it can be demonstrated that the actual construction details and layout of the megaliths can be interpreted as 'templates' which represent power structures within the community.

As it is our intention to demonstrate the central role that passage-graves played in the social structure of the Boyne Valley, it is necessary that a social structure be clearly defined. This theoretical issue will be taken up in Chapter 6 in order to show how a reading of material remains and the use of stone and space may, with the application of our theoretical model, discern such structures and answer the question, whether architecture plays a role in the representation of social structure?

Chapter 6

POWER

Introduction

The process of power is widely recognized in political science and anthropology as a critical element in understanding political processes and evolution but it has rarely been used by archaeologists. It is not that archaeologists have failed to recognize the importance of power [...] but they have not attempted to operationalize and use it in their theoretical and empirical research (Haas 1982:155).

Despite a lack of written records, dramatically differentiated grave goods, or other overt signs of power, the analysis of the materials remains of the Irish passage-graves can reveal a great deal about the power structures of the Irish Neolithic. Power structure seems to have been based on cooperative compliance induced by changes to agriculture with introduction of cereal cultivation, although there is some inference of leadership in terms of organizational requirements. This increased cooperation led to changes in social relationships from close kinship ties to larger community interrelationships, which were solidified by objectifying them in megalithic structures.

The success of this objectification was ensured by connecting the communal monument with the essential tenets and components of social relationships and loyalty: religion, cosmology, funerary rites and

inheritance, and skilled craftsmanship. Therefore the view that material remains cannot indicate ideology or social structure is refuted by the evidence apparent in the Boyne Valley passage-graves.

Given the amount of human agency involved and the effort entailed, the power to erect passage-graves, and other megalithic monuments, speaks of a communal strength and a coordinating body. In any setting, efforts at locating a social structure, or a structured set of relations, necessitate an examination of power. If we are to understand something of the nature of the political structure of the Boyne Valley, it is imperative that this question be addressed.

Attempting to delineate how material remains reveal power structures generally requires searching for evidence of social distinction, such as items which would be considered prestigious, and any differentiation in burial types, for which there is a paucity of evidence in Ireland (Herity 1974:156; Renfrew 1981:189). However, by assessing in detail the actual construction of the passage-graves themselves, it becomes clear that the social function of these graves was to represent communal power. Therefore, the structures themselves must be read to understand the power relationships at work in the Irish Neolithic. However, it is necessary to define power and the kinds of power we are seeking in these particular material remains.

Definitions of Power

Power has been defined in the simplest terms as the 'capacity to get things done'. Elaborated by Weber, "Power is the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance, regardless of the basis on which that probability rests" (Weber, 1947:152). This definition has been criticized by Robert Dahl for dealing only with the power holder and for not dealing adequately with resistance. Dahl retains Weber's definition but adds that the power holder only has power to the extent that he or she can get others to do something they might not otherwise do (Haas 1982:156). Both of these definitions imply that resistance must be an aspect of the equation. Foucault sees no power without resistance (Foucault 1981:93-94), but Hodder holds that if power is "ideologically misrepresented" (Hodder 1984:7) there might be no resistance. This example of Marx's 'false consciousness' argues that the 'powerless' do not have the ability to penetrate misrepresentative ideology. We are in more agreement with Hodder in allowing for little or no resistance if the ruling ideology is a benign one and "for the general good".

The application of certain theories and methods concerning power to the Irish Mesolithic and Neolithic contexts, although possible, is a problematical proposition. For example, certain theories of power suggest that hegemony and domination are enacted on a psychological level in that the negotiation of power and the hidden transcripts are a subjective, individual, communicative issue (see, for example, Bourdieu 1972, Scott 1990, Foucault 1988). In the Irish Neolithic, however, we are limited to the material remnants of a series of communal megalithic

passage-graves. Therefore these "hidden transcripts" (Scott 1990:xii) are indeed well concealed from us. These theories are more appropriate for societies from which we have detailed records concerning the negotiation of power and changing strategies, e.g. written texts, domestic architecture, or evidence of elite groups such as the hieroglyphic staircase from Copan (Abrams 1987). The absence of such 'clear' social distinctions in the Boyne Valley precludes us from analyzing any indications of class structures, stratified hierarchy, or differentiation in the appropriation of goods and labour and symbols. These are all key to a successful application of these modern theories concerning power.

These theories are difficult to apply to the analysis of megalithic passage-graves other than at a purely speculative level. Moreover, Foucault, in discussing the problematic of power and government, offers the term "eventalization" as a means of discovering the host of forces and actions at play in the intersection of an event (Foucault 1991:87). This, too, would require more data than is presently available from the period at hand. The re-negotiation of power is a central element in the transition from hunter-gathering strategies to agricultural sedentism, and in the latter's collective projects of megalithic construction. That the process of power changes and adaptations was a set of negotiated and calculated relations is unquestioned. We envision and accept the position of Foucault and his depiction of power as a "permanent provocation" (Gordon 1991:5). One interesting aspect of the study of power in this era is that there was witnessed in the Boyne Valley a major change in the construction of power relationships. The change of community structures and inter-relations during this transitional

period were the very first such changes in Ireland. Never before had the community as a practice existed, never had people lived in such proximity to such large numbers of non-kin.

Of all the forms of "hidden persuasion", the most implacable is the one exerted, quite simply, by the *order of things* (Bourdieu & Wacquant, 1992:168).

In the Irish Neolithic the new 'order of things' was first constructed, perhaps over centuries, and in this re-constitution of power relationships we envision the megaliths as playing an essential and integral part. Therefore a detailed study of the application of the power theories of Bourdieu (1972) and Foucault (1988) among others, is, although highly problematical and challenging, a rich area of investigation for future research. Once a clearer understanding of chronology and of the relationship between Mesolithic and Neolithic people emerges, aided by more settlement data, a more detailed analysis and application of the power theories that delve deeply into psychological motives will be applicable. If we conceived of the erection of passage-graves as expressions of the enactment of relations of dominance and the accumulation of material or "social capital" (i.e. prestige), (Bourdieu 1972:184) our analysis of power as expressed in these structures would be quite different. Therefore, in analyzing the passage-graves, we seek this kind of evidence to determine the existing power structures.

What of situations where the group is compliant or itself desirous of achieving a communal goal? This scenario necessitates the inclusion of compliance in discussions of power from the Irish Neolithic. As it is,

our interpretation of the archaeological record from this period sees the power structures at play as one of collective compliance negotiated through passage-graves and fostered by changing social conditions. Therefore relations of dominance are not sought but rather how these megalithic constructions demonstrate the co-operative nature of compliant power.

Power in the Megaliths

The megalithic passage-graves raise the issue of power at two distinct levels. First, the fact that this society was able to design and build a communal monument reveals that some power structure must have existed, or matured in the construction process. Secondly, once built, the very existence as well as the form and function of the passage-graves objectified and enabled the perpetuation of that power structure.

A Neolithic tomb is both a valued representation of a social unit and it creates the social unit in the practice of its construction. (Hodder 1990:281).

More specifically, in order to achieve such a project, it is necessary to secure the group's collaboration to invest time, effort and resources in this collective undertaking. A nexus is also required to plan, organize and manage the construction process. Finally, from the conception of the design through to the final establishment of the monument's role in the community, it is necessary to harness the devotion, solidarity and cultural beliefs of the group in order to infuse

the monument with power. The monument will then support and perpetuate the power structure it embodies.

Therefore, we are looking at several different levels of power: (1) the power evidenced in the construction process; (2) the power structures reflected in the form of the tomb (the spatial creation of power, and what the internal dimensions and the cruciform (Plan 1) shapes might imply for social structure); and coincidental to (2) the symbolic power of the passage-graves themselves: both to the degree that they are imbued with ritual power, astronomical power, political power, and their mere physical existence as the only structures in the visible vicinity.

Plan 1

from M.J. O'Kelly *Early Ireland*
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Power Evidenced in the Construction Process

Archaeologically, the actual amount of power that was exercised by prehistoric leaders over their populations may be impossible to determine. The relative probability that a population would positively comply with a given demand has no direct material manifestations. However, the communal labor projects that reflect scope of power also reflect specific instances of positive compliance by the population (Haas 1982:165).

In the case of the Irish passage-graves, there is no evidence of a singular power or central leader, whether despotic or benign. This point is supported by the paucity of differentiating households or grave goods. Wooden structures which have long since perished might in fact have shown such differentiation. However, we are faced with accepting the fact that no single person or powerful group ever built a home from megaliths. This cannot be explained away by claiming that they have not yet been uncovered or that they were destroyed. The figure of some 1,300 extant megalithic structures in Ireland and zero household remains indicates that it is not a matter of failing to unearth or recognize them, but that they never existed. However, it is possible that there might have been a social taboo on building a personal dwelling from megaliths. Such taboos are evidenced in many other cultures, where stone is reserved for temples or ritual buildings and only wood is used for domestic dwellings, despite the abundant availability of stone (Rapoport 1969:8-11). If such a taboo on building domestic structures from stone existed, and equally complex wooden structures were built for powerful leaders, it is still unusual that no expressions of wealth in

items such as jadeite or faience carvings such as those found inside the passage-graves are found elsewhere in the Boyne Valley.

Therefore, the power structures at play in the Boyne Valley appear more likely to have been based on a collective compliance rather than powerful central leadership. It is interesting to note Scott's point that quite often the norm-breakers are those who offer a new productive mode (Scott 1985:317-8). This negotiated social arrangement, may be attributable to the requirements of a changing demographic landscape and a need thus to voluntarily organize in the face of extended reliance on crop harvesting.

If in fact a singular cause can be adduced to the emergence of a change in social structure in the Boyne Valley, the introduction of a new productive mode is a good candidate for its impetus and acceptance. Although the possibility exists that the compliance was achieved by forceful means, there is no evidence of this. The archaeological record does not support it, for there would be required in such a case enough manpower for the remaining hunting-gathering needs, for agriculture, for construction, and, in addition for a coercive group responsible for enforcing compliance. No evidence of weapons other than for hunting purposes, no special worker compounds or other signs of forced labour have been uncovered. The absence of such material remains, however, is not in itself conclusive, as the archaeological record is at best always fragmentary, and coercion does not require the actual use of physical force:

Managerial control over economic, ideological, and physical portions of the environment will often have few explicit material manifestations and be detected only through highly specific field research (Haas 1982:161).

However, any section of the Boyne community that might have been accorded managerial control were evidently not accorded any material correlates to their position. This becomes apparent when we consider the lack of grave-good differentiation and the absence of megalithic domestic and individualistic structures. Prestige, respect and social standing are not immediately recoverable from the archaeological record by themselves. Can the archaeological record demonstrate resistance? Again, it must be accompanied by overt demonstrations if it is to be found. However, resistance in the many non-confrontational forms is possible, i.e. foot-dragging, dissent, slander etc. (Scott 1985:304). In the case of megalithic structures we can discern compliance in the finished product.

In view of the fact that a more centralized division of labour between production groups was arising, it is possible to surmise that the community could force compliance by withholding access to the fruits of these productive labours from those who refused to cooperate. However, the fact that the passage-graves appear to have been constructed to embody the belief systems and to attract the voluntary loyalty of the population suggests that these works were an expression of the society as a whole. When power is centralized and based on force, it tends to produce public symbols enlarging the leaders, such as the pyramids of Egypt or the statues of Stalin. Therefore, although enforced compliance cannot be definitively refuted as a basis for obedience, the

evidence available indicates that voluntary compliance was the basis of the society which constructed the megalithic passage-graves in Ireland. Yet even where compliance is voluntary, there remains the need for a social and political nexus to 'centre' the community in order to plan, organize and manage these investments of manpower, time, resources and cooperation.

Farming

The first appearance of farming in Ireland has been placed at the beginning of the fourth millennium and predates its appearance in Britain by some centuries (Barker 1985:202). Whether the introduction of farming came by way of new peoples, or new ideas, to Ireland, is not clear, but it did result in many changes. The cultivation of cereal produced a far greater yield of food than could be obtained through hunting and gathering alone. In addition, it was clear that a far greater crop yield could be obtained by farming lands cooperatively than by individuals farming individual plots. Although agriculture required more work per individual at certain stages of the year (Flannery 1973:307-308) and a larger group of people than was available to individual families, it required a smaller part of the collective group to devote all of its time to subsistence.

The first step in the process of collective farming (supplemented by small-scale hunting) involved consolidating the group to improve subsistence efficiency. This resulted in a decrease in the number of workers needed for times other than sowing or harvesting. The 'down-

sized' workers were put to work on passage-graves, and when they were needed for the harvest they were transferred there. The passage-graves required an investment of manpower and resources which in turn necessitated different occupations. To employ skilled masons, carpenters, and most likely 'ceremonial practitioners', suggests that these individuals were kept and fed on the proceeds of other people's labour. If the power was exercised through compliance, this implies that the community had already drawn together. This is evidenced by the relative prosperity and success of farming techniques achieved by these societies. It is also indicative of the community identifying a common goal. To do this a mechanism which declared a community *esprit de corps* was required. The advent of craftsmanship and specialization is also a key ingredient in the formation of stratified society. Over a few generations these families would have formed sodalities as the community became more important and the task of collective farming and cultivation of cereals required a supra family extension. The requirement of larger groupings of people was vital in order to pursue the new strategy of subsistence, of cereal cultivation over hunting-gathering. In this mobilization the passage-grave projects united different family and clan groupings and instilled a co-operative sense in the community, by perpetuating the co-operation and thus ensuring a future supply of communal labour. "The grand strategy of economic intensification enlists social structures beyond the family and cultural superstructures beyond the productive practice" (Sahlins 1972:101-2).

The objectification of social relations and of communal agreements vis-a-vis labour requirements and food distribution were

well served by passage-graves. This objectification in stone and in social acceptance may be interpreted as the charter to which the dispersed farmsteads of the Boyne Valley adhered.

Objectification guarantees the permanence and cumulativity of material and symbolic acquisitions which can then subsist without the agents having to recreate them continuously and in their entirety by deliberate action (Bourdieu.1972:184).

Over a period of time, this change in the relationship of the people to the land had serious effects on many social factors such as structures of ownership, inheritance rights, tools, transportation, communication, and technology. The manufacture of tools, and the labour involved in fencing and clearing land was best done in concert to avoid duplication of time and to concentrate resources. This led to major changes in kinship organization and to increased cohesion of the larger group to such an extent that it became necessary to objectify and legitimize this cooperation by investing these new social relations in institutions that the community agreed to. What better way could this be served than by constructing megaliths? Price and Brown argue that intensification of food collection, population increase and the reorganization of labour have such consequences as:

(1) The formalization of lineages and sodalities as integrative structures within the group, (2) status differentiation to establish and facilitate the operation of decision-making positions, and (3) increased ritual activity to sanctify organizational structures and positions of authority (Price and Brown 1985:16).

It is in the third point raised above that the application of their model is most apparent in the case of the passage-graves.

In the very act of their construction, the passage-grave projects syphoned off excess labour at times of the year when agriculture did not require it. Furthermore, the megalithic constructions became academies for the technological and artistic skills that flourished thereafter. An appreciation of the passage-grave building process as an academy for the transmission of skills is an important aspect of the megalithic projects. Estimates for the duration of construction vary greatly and are difficult to support. Herity speculates that 1,000 workers could have built Newgrange or Dowth in about ten years (Herity 1974:39). However, much longer periods have been postulated, for example a thirty year construction duration tentatively assigned to Newgrange (O'Kelly 1982:118). Such estimates depend on how many workers were available, and how important time might have been in finishing the project. The time to build the intricate passage-graves near the River Boyne should, at least, be counted in decades. Therefore, the skills learned and refined during the decades of construction represent an important social element in the construction processes. In the absence of known forms of non-oral communication, we can surmise that the passing down of skills and knowledge during the construction were a contributory factor in social cohesion and efficiency. A community project engenders a community spirit, and the people who toiled in the Boyne Valley created a lasting testament to their cooperation and genius.

In the completion of megaliths can be seen the ability and political power of those who organized the construction process, and the organized labour of those who did the actual physical work. Whether these workers were subjugated or coerced or were, in fact, participating in a *corvée* labour scheme, is unknown to date but we have earlier proposed that compliance was the most important aspect of this cooperative labour. Coordination in construction implies at least some managerial skills, so the door is left open to a small segment of the community in fact being leaders of a type, though perhaps no more than leaders of construction gangs. Is there evidence of such leadership in the material remains themselves?

The very slight differences in burial rite (See p.26), noted at several sites such as Newgrange, Knowth, and Carrowkeel, raise questions about the social order of these communities. There are passage-graves with a small percentage of interments, as opposed to the more customary cremation (Piggott 1954:202; Herity 1974:119). Who were these people and why were they accorded separate burial modes? It is not necessary to automatically attribute to these interred individuals a powerful social or political role in the community. Perhaps they might represent 'gifted' individuals, oral masters, or indeed construction coordinators. These are hypotheses, but given the overall egalitarianism signalled by the Boyne Valley, it seems inappropriate to attribute such differentiation to a "prehistoric benevolent despot or prince-bishop" (Herity 1974:185).

Although these conclusions can be criticized as speculative, in our view the material remains can be read and can lead to fairly stable hypotheses regarding the power relations in operation in the societies which built these tombs. While not indisputable, the evidence suggests that it is more likely than not that the passage-graves were built by a cooperative compliance resulting from innovations in communal agriculture which changed social relations enough to warrant solidifying them in communal monuments.

Power Structures Reflected in the Forms of Passage-graves

Having thus shown the types of social relations which existed in order to enable the construction of these passage-graves, and which were strengthened by the construction process itself, it is now useful to go on to the second way in which power is revealed by the passage-graves: the shape selected for the passage-graves can be read to reveal physically the power relations to be legitimized and perpetuated by their construction and domination of the landscape.

The more detailed analysis in Chapter 5 of the use of space in the passage-graves suggested how communal power in the Neolithic Boyne Valley community was reflected in the very idea and form of the passage-graves themselves. The essential points of that spatial analysis can usefully be recapped to complete our present synthesis of the various levels of power which can be read in the passage-graves. Barrett (1984) raised the possibility of the layout of megaliths acting as templates for social distinction among members of the community.

He saw the avenues and enclosures at Avebury as an arena for acting out time-space allocations of status or some social position during rituals. In this model one may read social differences into the respective participant divisions, (i.e. those within the enclosure over those outside, those on top of the cursus and those below). This postulation is not confined to the actual ceremonies held there but also reflects a social distinction in daily life such as hunting, farming, or trading rights.

An example of the possibility of the spatial dimensions of the tomb depicting political structures is the tripartite recessed division of passage-graves. If Barrett's model is to be continued or extended to passage-graves, the three recesses could in fact represent three equal and non-hierarchical types of social roles, or clans, or possibly even a division of Mesolithic, Neolithic A and Neolithic B groups, (note St. Patrick's definition of the Trinity via the shamrock to demonstrate the three distinct ideas subsumed by one concept). The application of a framework that entertains these possibilities is a necessary prelude to locating an explanation of the passage-graves in the structures themselves, rather than seeking answers from general processes originating in far off places.

The role of ritual in demonstrating, creating and reinforcing political, religious and ideological ideas and structures has been demonstrated world-wide. This role is evidenced in the passage-graves where the political or social structures represented are imbued with ritual sanctification: for example, they took place in the winter solstice and are depicted in skilled carving. Although the art on Irish megaliths is an important and truly wonderful expression of the community, we

have subsumed this medium and its interpretation under the same headings of symbolic space in Chapter 5. The art 'picked' onto the numerous orthostats, kerbstones, recesses and lintels are viewed as integral to the same framework of interpretation for space, i.e. the ceremonial re-enactment of social structure. The art on passage-graves, as will be seen, was an active agent in these ceremonies.

While the physical layout of a passage-grave can in itself, as an inanimate object, illustrate social relations, monuments were for the living, . and were shaped in such a way that in order to use them, social relations had to be acted out according to the particularities of the physical structure. Such particularities in the structure are analogous then to the particularities of the social structure. Re-enactment of social roles and of community politics took place at specifically important times and in important rituals. These were not simply funerary rituals for dead members of the community:

The living are also changed by such rituals. It is from them that the mourners are selected, perhaps through their affinal relationship to the deceased, and their duties will focus on the treatment and disposal of the corpse. By their actions in officiating at the funeral, they will ensure that certain of the duties and statuses of the deceased are relocated within the living community. Funerary rights therefore control both the transition of death and the reproduction of the obligations and statuses of the living (Barrett, 1994:50).

The Symbolic Power of the Monuments

The relevance of the passage-graves to the community, and their effectiveness in solidifying and perpetuating the existing power structures, were ensured by linking them to all of the most important aspects of life in the Irish Neolithic. A shared set of beliefs is required for a community to invest buildings with a social, spiritual, and thus emotional, character. These types of investments, which we see as collective, played a central role in the continuance and success of the communities who invested in them.

The megalithic monuments are a vivid example of symbolic monuments, since they were designed to embody not just one type of symbol, but incorporate in their structure and purposes several different realms of symbolism, and thereby could affect, and indeed, effect, society on various levels for various reasons. Indeed, by incorporating awe-inspiring art and beauty, ideology, religion, funerary practices, cosmology, meteorology, astrology and other crucial social rituals into a single structure, community unity, cohesion, and consciousness could be condensed and solidified on one permanent centre.

Symbolism was employed in order to assure the smooth running of the community, and perhaps its individual members' continued participation in collective projects. By appeals to, manipulation of, or simply representation of, ritual, spiritual and ancestral symbols, the passage-graves assured commitment from the community. The use of

force towards the aggrandizement of individuals or elites would involve resistance and non-cooperation. The utilization of common goals, imbued with spiritual overtones, provides an end for which people are more readily motivated.

Leaders may exercise ideological power based on control over symbols which have religious or supernatural significance to the general population. Such control may be manifested archaeologically in the concentration or centralization of religious symbols in particular sites or portions of sites (Haas 1982:160).

Finally, mention must be made of the possibility of the appropriation of symbols and the supplanting of former beliefs by incorporating them into a new scheme. Just as the Celtic cross reflects a symbiosis of the pagan symbol for eternity and the sun - the circle - attached to the Christian cross, so too might passage-graves represent such a symbiosis. This is possible if we allow that the cairn of soil depicts a prior, non-megalithic monument, from Mesolithic groups, and the interior megalithic structures represent a new form of ritual expression.

Summary

The symbolic aspects and manifestations of the passage-graves are seen at many levels. In this case the 'control' of the disposal of the dead, the 'control' of astrological events, and, the 'control' of non-portable art, all centered on the megaliths, are representations of the ideological power that resided in the passage-graves.

CONCLUSION

Man "takes control" of his existential space by marking it, making it readable by introducing his works into it, and probably by fitting or redefining much of the unmodified landscape into his scheme of things (Thompson, 1983:118).

The Neolithic communities of the Boyne Valley took control of their existential space, but what can we read from these ancient stones? Traditional archaeology can take us as far as understanding the physical realities of how the Mesolithic people of the Boyne lived and that life changed in the Neolithic through the introduction of cereal cultivation. However, while metaarchaeology will continue to debate whether it is possible to infer social, political and psychological realities from material remains, the adoption of a social archaeological approach in this thesis has allowed us to go further and interpret social structure and ideology from these megaliths. Not only do they reveal the changes that impelled the construction of these monuments; they also indicate the effect that the construction and existence of the passage-graves had on the societies that built them.

While the land was cleared and planted in the early Neolithic in the Boyne region, and while the population was adjusting to a form of mixed farming resulting from the introduction of cereal cultivation, the megaliths appeared in great numbers. This is indicative of the measure of success that the meeting of these Mesolithic and Neolithic groups met with. This subsistence success, evident from the scale of non-

subsistence effort expended by the communities, permitted, and was in part attributable to, the cooperation and coordination in erecting passage-graves.

They played a crucial role in validating the social structure and indeed the environment with which the society was familiar (Clark 1992:41).

The nature of this social structure has been shown to be a highly organized and efficient entity. There is, however, a reluctance to actually classify it in one of the recognized anthropological brackets: band, tribe, chiefdom, inchoate state and state. History has shown that there does exist a tendency for farming groups to have a more complex social structure than hunter-gatherer groups and that this transition entails a move from a band organization to that of a tribe (Bintliff 1984:83; Service 1962). The ability to construct megaliths points to co-ordinative strength that could only be attributed to social structures above the band level, and the tribe is one working model for the early Neolithic that has gained some measure of acceptance. The tribe, as posited by Sahlins (1968), constitutes a grouping of villages linked by kinship ties above the family level and cross-village sodalities. "Yet the larger unit would characteristically lack centralized control in socio-economy, or a permanent hierarchy-each village would be autonomous" (Bintliff 1984:83). Renfrew (Cunliffe & Renfrew 1981:79) interpreted the Irish passage-grave cemetery "where there is no conglomerate settlement" as representing a burial group for people belonging to a "corporate body", which he saw as "tribal behaviour".

What must be kept in mind for the Boyne Valley is the undoubted changing nature of passage-grave society over the centuries as groups flourished and splintered and as population densities changed. Yet in the formative period of the Boyne Valley, when social cohesion was needed, the megalithic project ordered behaviour, in that its acceptance by the community imposed a cooperative nature and thus fostered cohesion because "there is little room for conflict when the details of social action are prescribed by custom" (Hatch 1973:227). The effect of the passage-graves was to foster this social cohesion. By creating monuments which united the community not only on a practical level by requiring cooperative labour, but on a symbolic and ideological level as well, the existing social and power structures were objectified and perpetuated. It also would have produced significant changes in these communities

The appearance of megaliths on the Neolithic landscape would have altered the perception of the physical and temporal worldview of these communities. Bi-directional effects of the megalithic projects must have included an altered sense of the permanent and the fleeting. The concrete and durable structures of the Boyne, with their exquisite corbelled roofs and massive covering mounds, signalled that space could be radically altered and weight could be displaced on levels previously unknown. The techniques and skills employed in the construction of passage-graves must also have called for new linguistic frameworks to communicate the nuances of new techniques and describe ideas inherent in their plans.

The Neolithic builders of the Boyne Valley developed an architectural technique that ensured the physical endurance of passage-graves through the millennia. They also devised a metonym which ensured the endurance of the society the passage-graves were designed to represent and perpetuate. The passage-graves continued to be built in the Boyne Valley, and throughout Ireland, for close to two thousand years. By combining physical endurance with a use of space to symbolize the political, social and ideological realities of their communities, the Neolithic Boyne Valley people have left us clear messages as to their way of life which can be read clearly. All that is required is an archaeological approach which allows cautious but convincing inferences to be made from material remains, and to recognize the traces of power in the stones.

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