

Vegard Edvardsen

## Lost in translation

An Actor-Network Theory analysis of the current discourse on the authenticity of Newgrange

Master's thesis in Archaeology

Supervisor: Heidi M. Breivik

May 2021





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Faculty of Humanities  
Department of Historical Studies



Kunnskap for en bedre verden



# Abstract

The thesis introduces the reader to the discourse on the authenticity of some of Newgrange's reconstructed features and proposes to analyze it using Actor-Network Theory, specifically taking inspiration from a paper by Callon (1986) - "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay".

Authenticity is established as the central theme of the discourse, but three main points of contention are established by the author by reviewing the recently published material on the subject. The three points are the quartzite revetment wall, the solar alignment phenomenon, and the significance of the site outside the Neolithic context being shown to visitors now.

The analysis finds that there are two alliances vying for access to the monument. The alliance led by The Office of Public Works Ireland has successfully undergone the *four moments of translation* and have established themselves as The Obligatory Passage-Point. The researchers trying to challenge the authenticity of Newgrange have a more tenuous alliance, actively trying to involve other actors in their cause, such as The Irish Public.

The thesis concludes that the *status quo* of the situation will likely remain unchanged, unless internal *dissidence* occurs from within The Obligatory-Passage Point, or other actors are *enrolled*, causing a shift of power. The thesis also finds it highly unlikely that UNESCO will interfere directly in the matters of The Republic of Ireland, as per the Nara document on authenticity.

## Acknowledgements

I would like to thank NTNU and Lars F. Stenvik for arranging the group tour to Ireland that first introduced me to Newgrange. And I would like to thank my advisor, Heidi M. Breivik, for patience, encouragement, and sage counsel during this process, guiding me safely ashore.

A special thanks to my family and friends. I could not have done this without your support. I will be going back outside again now, I promise.

A very special thanks to Lånekassen for misreading my application and therefore made me wait four months before paying out, in the meantime making me go on social welfare for survival in an already internationally stressful situation. I absolutely did this without you.

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## Abbreviations

**ANT – Actor-Network Theory**

**OPP – Obligatory Passage Point**

**OPW – The Office of Public Works (Republic of Ireland)**

**STS – Science and Technology Studies**

# 1. Introduction



**FIGURE 1 – NEWGRANGE (PHOTO BY ME)**

The purpose of this thesis is to illuminate the current discourse on the interpretations and reconstructions done in 1962-1975 on Newgrange by Prof. O’Kelly and his team. Newgrange is but one of many passage tombs in the Brú na Bóinne area in the Republic of Ireland. I shall give some background on these types of monuments, but my focus will specifically revolve around Newgrange, as it is currently often referenced and debated in archaeological publications. This will therefore be a case study of a specific discourse on a specific monument, but I hope to show examples of similar cases, preferably of other UNESCO world heritage sites.

I will give a short introduction to the theme and give a short history about Newgrange and its controversies. For instance, the authenticity of the now famous solar alignment has been drawn into question by Irish peers, such as Michael Gibbons (Gibbons, M. & Gibbons, M. 2016). A reversal in status of such a significant feature of the monument would indeed have major consequences for archaeology in Ireland, but perhaps also internationally. Newgrange is certainly not the only UNESCO site that has undergone reconstructions, where later the authenticity was hotly debated. For instance, Knossos, Visby, and Nara (ICOMOS 1994)

To keep the thesis within a rational timeframe and scope, I choose to ask a single overarching, but quite precise research question: What exactly is the controversy surrounding Newgrange?

I then pose further research questions who are designed to be answered by my chosen theory and methodology – Discourse Analysis and ANT-Analysis. I shall give more reason for choosing this approach later, but first the entire list of research questions on the next page.

In 1993, The Brú na Bóinne – Archaeological Ensemble of the Bend in The Boyne – was declared a world heritage site.

UNESCO (2020) states that the site meets three criteria for this decision:

Criterion (i): The Brú na Bóinne monuments represent the largest and most important expression of prehistoric megalithic plastic art in Europe.

Criterion (iii): The concentration of social, economic and funerary monuments at this important ritual centre and the long continuity from prehistory to the late medieval period make this one of the most significant archaeological sites in Europe.

Criterion (iv): The passage grave, here brought to its finest expression, was a feature of outstanding importance in prehistoric Europe and beyond.

UNESCO mentions the reconstructions done on Newgrange and the other monuments and writes that “The archaeological remains on the site, both above and below ground are wholly authentic.”

So, we see that the authenticity of the monument is central in the decision to declare it a World Heritage Site. Authenticity is a term that we need to explore further, as it does come up frequently in the recent discussions.

**OPW**  
The Office of Public Works  
Oifig na hOibreacha Poblacha

**WINTER SOLSTICE AT  
NEWGRANGE**

**LOTTERY APPLICATION FORM**

PLEASE USE BLOCK CAPITALS AND RETURN  
COMPLETED FORM TO BRÚ NA BÓINNE VISITOR  
CENTRE, DONORE, DROGHEDA, CO. MEATH,  
IRELAND.

Name: Sample  
for illustration  
purposes only

Address: \_\_\_\_\_  
\_\_\_\_\_

Country: \_\_\_\_\_

Tel. No. (including international code): \_\_\_\_\_

E-mail (separate each letter):  
Sample for illustration  
purposes only

Signature: \_\_\_\_\_

Have you visited Newgrange?      Yes      No  
(Tick as appropriate)                   

**Conditions of Attendance**

1. Applicants must be over 10 years of age.
2. An adult must accompany an applicant under the age of 18.
3. Only applications on the official form can be entered into the draw.
4. Applications are valid for the current year's draw only.

Today, as a tourist, the only way to visit Newgrange, Dowth or Knowth is through the Brú na Bóinne Visitors center. The center is run by The Office of Public Works, a part of the Irish government. The only way to enter the chamber at Newgrange is by guided tour through the Visitors Center. Yearly, almost 200 000 people visit Brú na Bóinne (Newgrange.com 2019). By comparison, The Guinness Storehouse had 1,736,156 visitors in 2019 (Extra 2019).

If you want to experience the winter solstice phenomenon inside the chamber you have to apply to a lottery (pictured). If you are lucky and/or are a researcher, you can be invited by the OPW to experience it. The center is currently working on updating their exhibitions during COVID closure.

**FIGURE 2 -  
LOTTERY  
TICKET – OPW  
(NEWGRANGE.C  
OM)**

## 1.1 The Nara document on Authenticity

Authenticity is a term that can have different meanings in different contexts. In the context of this thesis the view of UNESCO on authenticity is important to establish. Mostly because of Brú na Bóinne's status as a World Heritage Site.

As stated earlier, UNESCO in 1993 had certain criteria for choosing Brú na Bóinne. The year after, in 1994, ICOMOS published the Nara document on authenticity.

"The Nara Document on Authenticity was drafted by the 45 participants at the Nara Conference on Authenticity in Relation to the World Heritage Convention, held at Nara, Japan, from 1-6 November 1994, at the invitation of the Agency for Cultural Affairs (Government of Japan) and the Nara Prefecture. The Agency organized the Nara Conference in cooperation with UNESCO, ICCROM and ICOMOS." (ICOMOS 1994 p. 48)

The Nara Document therefore is the guiding document which UNESCO and signatory countries must adhere to regarding the definition of authenticity, and therefore by extension, The Republic of Ireland and The Office of Public Works.

The Nara Document itself establishes guidelines for this definition, built upon the earlier Charter of Venice. I have included two screenshots of the document below. The last page containing Appendix 2 and the previous quote not included.

## THE NARA DOCUMENT ON AUTHENTICITY (1994)

### PREAMBLE

1. We, the experts assembled in Nara (Japan), wish to acknowledge the generous spirit and intellectual courage of the Japanese authorities in providing a timely forum in which we could challenge conventional thinking in the conservation field, and debate ways and means of broadening our horizons to bring greater respect for cultural and heritage diversity to conservation practice.

2. We also wish to acknowledge the value of the framework for discussion provided by the World Heritage Committee's desire to apply the test of authenticity in ways which accord full respect to the social and cultural values of all societies, in examining the outstanding universal value of cultural properties proposed for the World Heritage List.

3. The Nara Document on Authenticity is conceived in the spirit of the Charter of Venice, 1964, and builds on it and extends it in response to the expanding scope of cultural heritage concerns and interests in our contemporary world.

4. In a world that is increasingly subject to the forces of globalization and homogenization, and in a world in which the search for cultural identity is sometimes pursued through aggressive nationalism and the suppression of the cultures of minorities, the essential contribution made by the consideration of authenticity in conservation practice is to clarify and illuminate the collective memory of humanity.

### CULTURAL DIVERSITY AND HERITAGE DIVERSITY

5. The diversity of cultures and heritage in our world is an irreplaceable source of spiritual and intellectual richness for all humankind. The protection and enhancement of cultural and heritage diversity in our world should be actively promoted as an essential aspect of human development.

6. Cultural heritage diversity exists in time and space, and demands respect for other cultures and all aspects of their belief systems. In cases where cultural values appear to be in conflict, respect for cultural diversity demands acknowledgment of the legitimacy of the cultural values of all parties.

7. All cultures and societies are rooted in the particular forms and means of tangible and intangible expression which constitute their heritage, and these should be respected.

8. It is important to underline a fundamental principle of UNESCO, to the effect that the cultural heritage of each is the cultural heritage of all. Responsibility for cultural heritage and the management of it belongs, in the first place, to the cultural community that has generated it, and subsequently to that which cares for it. However, in addition to these responsibilities, adherence to the international charters and conventions developed for conservation of cultural heritage also obliges consideration of the principles and responsibilities flowing from them. Balancing their own requirements with those of other cultural communities is, for each community, highly desirable, provided achieving this balance does not undermine their fundamental cultural values.

### VALUES AND AUTHENTICITY

9. Conservation of cultural heritage in all its forms and historical periods is rooted in the values attributed to the heritage. Our ability to understand these values depends, in part, on the degree to which information sources about these values may be understood as credible or

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truthful. Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, is a requisite basis for assessing all aspects of authenticity.

10. Authenticity, considered in this way and affirmed in the Charter of Venice, appears as the essential qualifying factor concerning values. The understanding of authenticity plays a fundamental role in all scientific studies of the cultural heritage, in conservation and restoration planning, as well as within the inscription procedures used for the World Heritage Convention and other cultural heritage inventories.

11. All judgements about values attributed to cultural properties as well as the credibility of related information sources may differ from culture to culture, and even within the same culture. It is thus not possible to base judgements of values and authenticity within fixed criteria. On the contrary, the respect due to all cultures requires that heritage properties must be considered and judged within the cultural contexts to which they belong.

12. Therefore, it is of the highest importance and urgency that, within each culture, recognition be accorded to the specific nature of its heritage values and the credibility and truthfulness of related information sources.

13. Depending on the nature of the cultural heritage, its cultural context, and its evolution through time, authenticity judgements may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors. The use of these sources permits elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined.]

### APPENDIX 1

Suggestions for follow-up (proposed by H. Stovel)

1. Respect for cultural and heritage diversity requires conscious efforts to avoid imposing mechanistic formulae or standardized procedures in attempting to define or determine authenticity of particular monuments and sites.

2. Efforts to determine authenticity in a manner respectful of cultures and heritage diversity requires approaches which encourage cultures to develop analytical processes and tools specific to their nature and needs. Such approaches may have several aspects in common:

- efforts to ensure assessment of authenticity involve multidisciplinary collaboration and the appropriate utilization of all available expertise and knowledge;
- efforts to ensure attributed values are truly representative of a culture and the diversity of its interests, in particular monuments and sites;
- efforts to document clearly the particular nature of authenticity for monuments and sites as a practical guide to future treatment and monitoring;
- efforts to update authenticity assessments in light of changing values and circumstances.

3. Particularly important are efforts to ensure that attributed values are respected, and that their determination includes efforts to build, as far as possible, a multidisciplinary and community consensus concerning these values.

4. Approaches should also build on and facilitate international co-operation among all those with an interest in conservation of cultural heritage, in order to improve global respect and understanding for the diverse expressions and values of each culture.

5. Continuation and extension of this dialogue to the various regions and cultures of the world is a prerequisite to increasing the practical value of consideration of authenticity in the conservation of the common heritage of humankind.

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FIGURE 4 - THE NARA DOCUMENT SCREENSHOT 1

FIGURE 3 - THE NARA DOCUMENT SCREENSHOT 2

The section most interesting to this thesis would be listed under VALUES AND AUTHENTICITY, bullet points 9.-13.

In bullet point 9. We see that credible and truthful sources are required for the heritage to be considered authentic.

However later, we see that the document gives a flexible definition of authenticity, especially in bullet points 12. and 13., where it gives the local cultures great autonomy on determining credibility and truthfulness. In essence, it gives the specific culture (or heritage) in question a good measure of autonomy in defining authenticity.

On one hand the document gives UNESCO a great deal of freedom in choosing what should go on a heritage list, but it also gives the local authorities autonomy in dissemination and definition of what authentic (local) heritage is.

The public have as varied a view on what authenticity is as its constituent members. Yet, we see that the Nara document takes this problem into account, opening for a multiple

views and even subjective views on credibility and truthfulness, i.e., local legends and oral tradition.

To summarize, The Nara document is the guiding document that UNESCO uses to ascertain the authenticity of a heritage. The bullet points under VALUES AND AUTHENTICITY lays this basis and opens for multiple interpretations of the term authenticity.



## 1.2 Reasons for choosing this topic

I found the theme of a UNESCO-status-site with two or more “camps”, representing often completely opposing views to be fascinating. In addition, I was lucky enough to visit the chamber inside Newgrange as a student a few years ago and have been intrigued ever since. I was equally lucky to be given tours, on a different subject matter, by Michael Gibbons and a tour of selected sites in the Boyne Valley by Geraldine Stout, both of whom are contributors to the current discourse on Newgrange itself.



**FIGURE 5 - PHOTO TAKEN BY ME OF THE GROUP BEFORE THE ENTRANCE. NW**

## 1.3 Research questions

The main theme of this thesis is to examine the controversy surrounding Newgrange, meaning the current discourse on Newgrange and the interpretations and reconstructions done by Prof. O’Kelly and his team ca. 1962-75. The purpose is not to go into technical detail about which reconstructions are authentic or not, rather to investigate the discourse itself and the actors involved in it.

I suppose this thesis is an experiment to see if we can apply an Actor-Network Theory (ANT) analysis of a complex situation and gain some insight into why there is a discourse going on and what it is about.

I have chosen to follow Michel Callon’s example from 1986, “Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay”. In this article, Callon follows the actors through what he calls: “The four moments of translation”, which defined a sort of example of how to apply ANT to an analysis of researchers interacting with the Scallop. It serves as a basis for the analysis, and I find it relevant to the current discourse on Newgrange.

Therefore, the research questions are worded in a specific manner to allow for an ANT analysis to answer them. ANT features jargon that needs to be explained. I have made an explanation of key terms in ANT that will come in the chapter on Theory and Methodology

From chosen theory and methodology I propose the following research questions:

**1. What exactly is the controversy surrounding the authenticity of Newgrange?**

This question is posed to give the reader an overview of the current situation and makes it easier to illuminate the following questions:

**2. Who are the most prominent actors involved in the discourse on the authenticity of Newgrange?**

We seek to identify the most prominent actors in The Network surrounding the discourse and find out what they contribute.

**3. How do the actors position themselves in The Network?**

The thesis uses Callon's (1986) "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay" as a template to explore the relative strengths of any alliances. How are the actors positioning themselves, relative to each other, in this discourse?

**4. Can we say anything about the flow of information in the discourse?**

Here we must seek out the Obligatory Passage-Point(s). This will tell us who controls access for all other actors in The Network and, according to Callon, the power of alliances.

## 1.4 Structure of the thesis

This thesis will introduce the reader to the history of Brú na Bóinne and its research history, specifically regarding Newgrange, as it is the focus. The empirical basis for the analysis will be introduced, consisting of written publications on the subject.

The reader will be introduced to the theory laying the groundwork for analysis, the basic terms and concepts in Actor-Network Theory being laid out.

The analysis, like Callon (1986), starts by introducing the most prominent actors involved in the discourse. *The four moments of translation* is used as an inspiration and template for this analysis. The aim being to uncover The Network to enlightening research questions.

The analysis is followed by further discussion and finally the concluding remarks.

## 2. Historical background

Since this thesis focuses on a single monument, I shall first give a short history of the area. The Boyne Valley is famous for many types of sites with historical significance and has a deep and rich history, not limited to the megalithic builders' era.

### 2.1 History of Brú na Bóinne

In the Boyne Valley, County Meath, eastern Ireland, we find the megalithic passage tomb complex of Brú na Bóinne. The surrounding landscape features several smaller passage tombs and other prehistoric sites, mostly concentrated in the bend of the River Boyne. Three larger monuments of approximately equal size, Knowth, Dowth and Newgrange. If you stand on any one of these sites you can clearly see the other two with the naked eye. Their monumental size and age prompted UNESCO in 1993 to add the passage tomb complex to the list of cultural world heritage sites. UNESCO considers Brú na Bóinne one of Europe's most important concentration of megalithic art (UNESCO WHS 2020). The site has since 2013 been known as "Brú na Bóinne - Archaeological Ensemble of the Bend of the Boyne"



**FIGURE 6 - LOCATION OF BRÚ NA BÓINNE VISITOR CENTRE (FROM NEWGRANGE.COM)**

#### 2.1.1 Landscape

The bend in the River Boyne was formed about 12,000 years ago at the end of the last Ice Age. The landscape in the Boyne Valley features moraines and glacial silt deposits and has historically made the area fertile for farming. Today, the landscape is scattered with small to medium farms. The area receives less rainfall annually than other areas of Ireland. Combined with good drainage from the river and streams, makes the Boyne Valley well suited for farming, in contrast to the bog and moorlands elsewhere in the country.

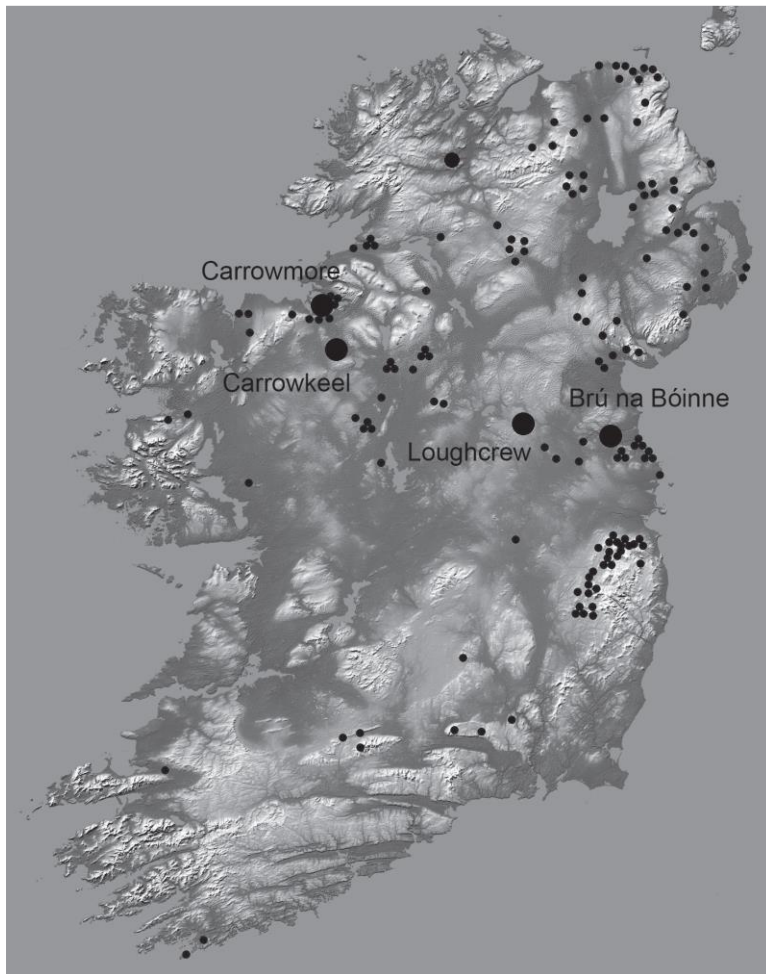
#### 2.1.2 Mesolithic

The earliest known human settlement in the area dates to the Mesolithic. The river was a good source of salmon and eels for hunter-gatherers lacking any other large mammals to hunt this far inland in Ireland at the time (Stout 2002). Pollen and seed samples indicate a heavily forested landscape.

### 2.1.3 The Neolithic

There is evidence of pre-tomb Neolithic settlement in the Boyne Valley, dating between 3900 – 3500 BC (Ibid 2002). These first farming communities practiced sheep and cattle domestication. Although there were settlements here that early, the earliest passage tombs in Ireland are found out west. Periods of deforestation and regrowth can be deduced from the core samples taken 4km from Newgrange (Smyth 2009). The deforestation activity accelerates towards the time of the monument's construction.

## 2.2 Passage tombs



**FIGURE 7 - FROM HENSEY (2015) P. 14, FIGURE 1.2**

The passage tomb tradition in Ireland differs from the continental practices, though similarities can be observed in Iberia, Brittany, and the Orkney Islands. If looking at a map of Ireland and the presence of passage tombs, one can observe a line going from east to west, north of which we find most of these monuments. The Irish passage tombs also tend to group into complexes of larger and smaller structures. Hensey (2015) gives an estimate of about 260 monuments island-wide that can be classified as passage tombs. The main areas of concentration being Carrowmore, Carrowkeel, Loughcrew and The Boyne Valley complex.

The first construction of passage tombs in Ireland seems to coincide perfectly with the arrival of farming on the island. The first known instance of cereal cultivation and house construction occurs from 3750 BC. This is also when we see the first passage tomb complexes pop up in Carrowmore.

One fascinating aspect of the Irish passage tomb is the sheer variety in size and quality of sites. Newgrange being

85m at its widest and Carrowmore being only 13m. The artwork also suggests higher levels of sophistication in the East, the craftsmanship waning as you move out west. At first the theory went that new settlers from France or Britain arrived in boats sometime around 4000 BC. They brought with them the knowledge of passage tomb construction, built the Boyne Valley complexes first. Then by cultural diffusion the tradition spread west, becoming more rudimentary in the process. It is now known that Carrowmore predates Newgrange by as much as five hundred years and that the passage tomb complexes of Ireland must be seen as part of a continuum (Hensey Ibid.).

## 2.3 Newgrange description

Newgrange sits 61m above sea level in the Bend of the River Boyne, about 50km north of Dublin, Ireland. From afar it appears to be circular, although the dimensions are 78,6 m NW-SE and 85.3 m NE-SW. This makes it comparable in size to Knowth and Dowth, both of which sport two passage tombs each. The Newgrange tomb itself has a single passage that opens in the southeast (towards the winter solstice) and runs for 18.95 m flanked by 43 orthostats (standing stones) topped with slabs. The passage opens to a chamber with three recesses or side-chambers, resembling a cruciform. It measures 5.25 m from its entrance to the back of the north or end recess and 6.55 m from the back of the west recess to the back of the east recess (O'Kelly, M. J., & O'Kelly, Claire 1982). Directly above the entrance is a roof box. It is here that the sun creeps all the way into the chamber on winter solstice, and perhaps the most controversial part of the entire monument.

The passage tomb is itself covered by a cairn, mostly made up of water-rolled stones from the nearby river. The top of the cairn is covered by green grasses, contrasting the bright white reconstructed quartzite wall lining the southeast or entrance side. This white wall is a reconstruction by Michael O'Kelly during his supervision of the 1962 – 1975 excavation project, but more on this later. The base of the mound is a kerb of 97 kerbstones, of which none are missing. They vary in length from 1,7 to 4,5 meters, many of the kerbstones are decorated. Especially the entrance kerbstones and its diametrical opposite, named K52.

A circle of standing stones surrounds the cairn, but the circle is not concentric. The closest standing stone being 7m and the farthest 17m. There are 12 remaining stones, but O'Kelly suggests there might have been as many as 35 to 38 in total. Most archaeologists agree that these stones were erected later, sometime in the bronze age.

## 2.4 Art



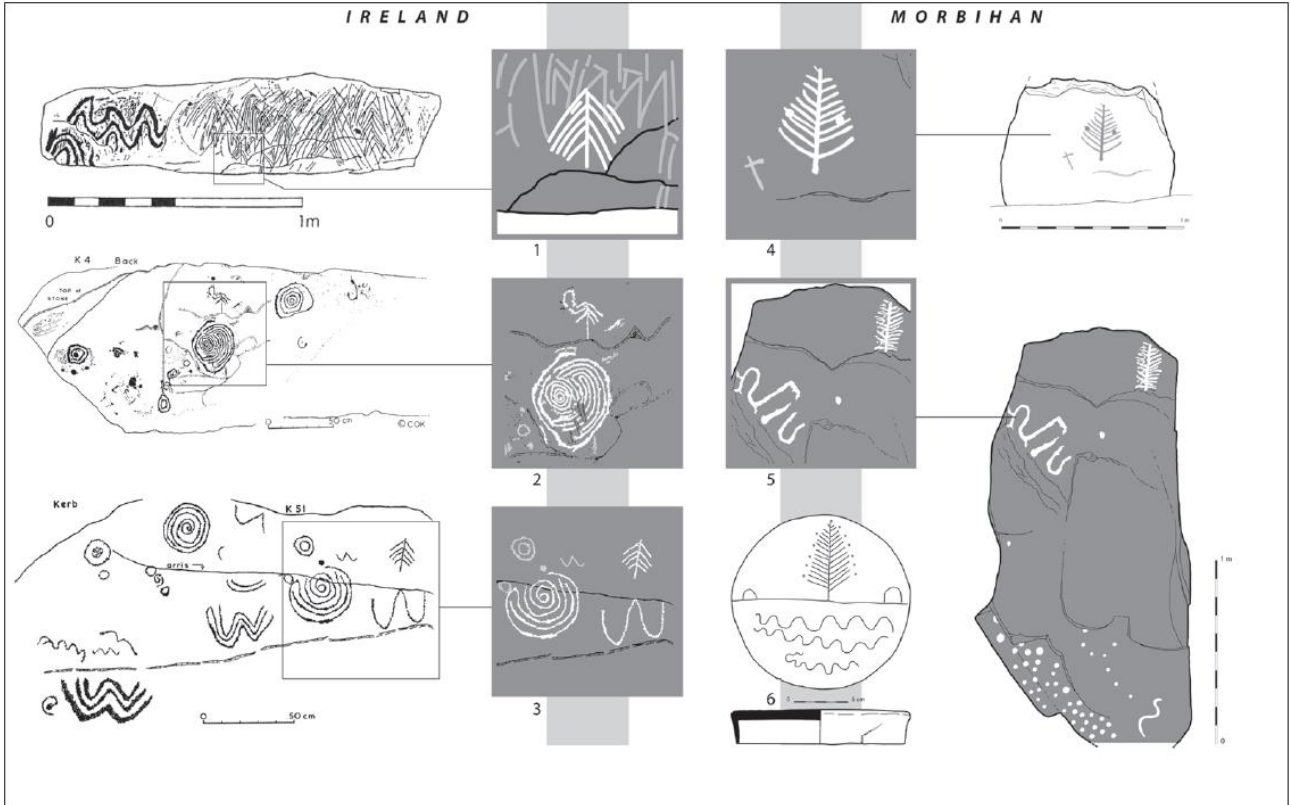
**FIGURE 9 - KERBSTONE 1 AT NEWGRANGE (K1) - FROM NEWGRANGE.COM**



**FIGURE 8 - KERBSTONE 4 AT KNOWTH (K4)- FROM CARROWKEEL.COM**

As mentioned before, one of the reasons for UNESCO to add Brú na Bóinne to the list of cultural world heritage sites is because of the megalithic art conserved there. Art from this period in Ireland and Britain are considered unique, mostly because the art is abstract, in contrast to styles on the European continent from the same period (Robin 2012). In Newgrange the art is found carved into the orthostats and roof tiles covering the passage tomb, as well as on the entrance stone laid out before the passage entrance. The later standing stones are not decorated. The art is geometrical and non-representational, meaning it is abstract and not depicting any creatures. There are ten categories of art can further be separated into two styles of megalithic art identified at Newgrange: The early geometrical style with spiral patterns (or curvilinear) and the later dramatic style with chevrons (or rectilinear). Dr. Robert Hensey (YouTube.com 2018, July 13) shows in his talk at google about Newgrange that the Neolithic builders and caretakers of the tomb that they can be seen as curators of art. Pieces of carved art have been removed and carved over again, indicative of a sense of temporal style and taste.





**FIGURE 10 - FROM ROBIN (2012) P. 145, FIGURE 10.2**

## 3. Research History

### 3.1 Early archaeology

The site has been known to the locals since at least the Middle Ages. At one time the area was used as a farm field for the local abbey, hence the name "grange". The cairns have featured prominently in Celtic Mythology. The name Brú na Bóinne literally means "the palaces by the River Boyne". These "palaces" were, according to early Celtic tradition, where the Tuatha Dé Danaan retreated to after the arrival of the Celts to the island. The Tuatha Dé Danaan here associated with elves and spirits of old (Newgrange.com).

In the year 1699 a man named Charles Campbell was the landowner of Newgrange (Stout 2002). Back then the entrance to the passage tomb was covered in caved in material from the cairn itself and the entrance stone blocked the access. Charles Campbell started using the loose caved in stone from the cairn and soon discovered the entrance, or cave, as he called it. It so happened that Edward Lhwyd, a Welsh scholar and antiquarian was making a tour of Ireland and heard about the discovery of the cave. He gave a detailed description of the passage grave, the art and several of the artifacts found in and nearby in four letters to friends. The discovery led to several antiquarians visiting, performing their own excavations and surveys.

In 1882 the area was protected under the Ancient Monuments Protection Act (Gov.ie). Subsequent archaeological excavations revealed more about the history of Newgrange. At that time, some archaeologists thought the site must be from the Bronze Age, or possibly being built by Viking invaders. It has also been associated with the Celtic culture, but later studies have shown that the megalithic builders were largely replaced by later population movements.

From 1962-1975 Michael O'Kelly and a team of archaeologists performed the largest excavations to date, at the same time reconstructing many of the destroyed features of the passage tomb. These reconstructions by O'Kelly and his team, as we shall look closer at later, are to this day quite controversial.

## 3.2 Michael O’Kelly, excavation, and reconstruction 1962-75

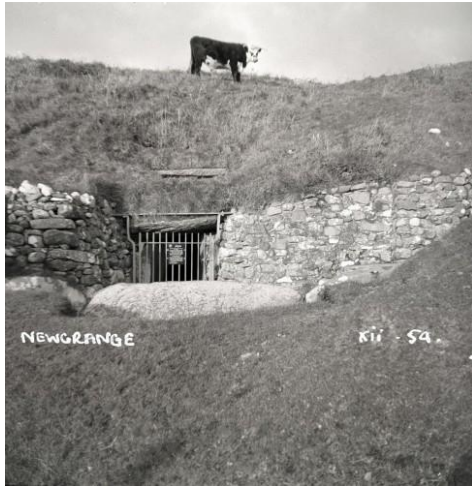
I shall now give a description of the 1962-1975 excavations and reconstruction efforts performed by Prof. Michael O’Kelly and The Office of Public Works in Ireland. Most of my references here come from the book by O’Kelly, M. J., & O’Kelly, Claire. (1982)., *Newgrange: archaeology, art and legend*. A much more detailed account of the excavation than I shall be giving here. The excavations took place during the summers, each season usually lasting four months.

### 3.2.1 The excavations

The plan for the excavations and reconstruction effort was laid forth by the 1961 Commission. The Commission made several assumptions about the layout of the mound that Prof. O’Kelly and his team later had to modify based on their findings and interpretations. The Commission stated that the mound should be restored to its sloping façade. The kerbstones, orthostats, and passage itself was also included in the commission to be restored. So, a lot hinged on the information the team could extract in the first few seasons if they were to be successful.



**FIGURE 11 - NEWGRANGE INTERIOR (ROUGHLY SE) - TRI-SPIRAL ENGRAVING (NEWGRANGE.COM)**



**FIGURE 12 - NEWGRANGE PASSAGE NW, CA. 1954 BEFORE EXCAVATION. (NEWGRANGE.COM)**

Therefore, the excavation started with focus on the standing stones and kerb. Trenches were cut in the cairn slip to determine the contents of the mound. The team soon found out that the retaining walls never where sloped, at least not in their interpretation at the time. The layer of quarts found in the cairn slip indicated to the team that the south wall must have been straight and covered in quarts, giving off a white appearance.

The circle of orthostats was investigated, and it was concluded that this was a later addition to the monument. O’Kelly and his team also postulated that the number of orthostats must have been greater in the past, probably amounting to 35-38 stones.

The passage itself was completely removed of debris and for the first time, the entire length of the passage could be observed from

above. The roof stones covering the passage reminiscent of a staircase makes the passage feel like it shrinks as you get closer to the chambers. The floor was worn down by the feet of visitors and the standing stones were sagging inwards on the passage and towards the entrance. Here, several modern struts and supports presented a hazard for visitors and the 1961 Commission also stated that reconstruction of the passage was preferable.

Just above the entrance and 2,5 m back the team uncovered what they dubbed the *roof box*. Before excavating the only thing visible of this *roof box* was a lintel covered in sod and grass. Further investigation revealed intricate decorations on the *roof box* stones. The *roof box* consists of two dry-built stone walls resting on roof-slab 1 and topped by a over 1 meter slab. When fully excavated the *roof box* would be open to the SE (O’Kelly, M. J., & O’Kelly, Claire 1982: 93-94).



**FIGURE 13 - ROOF-BOX AND K1 (NEWGRANGE.COM)**

### 3.2.2 The reconstructions

The 1961 Commission outlined several conservation and reconstruction efforts. O’Kelly mentions the different talents and skills needed from the team from The Office of public Works to undertake such disparate and challenging reconstruction efforts.

The teams first undertaking was to reconstruct the kerb and retaining wall, or as Prof. O’Kelly calls it, the revetment wall. Several kerbstones were moved back into their original positions, after excavations revealed their original placement. They then turned their attention to the revetment wall and discussed how to reconstruct it, in light of newly uncovered knowledge. As mentioned previously, the team suspected that the revetment wall must have been straight in the past and that the façade most likely was covered in quartz, found in quantities in the excavation of the cairn slip. They decided to reinforce the revetment with a concrete wall behind it, and just behind the kerbstones. The quartz was then fastened with mortar to the wall. The entrance was widened, although the archaeologists at the time seem to concur that this is an anachronism but made necessary due to the increasing number of visitors per year to the site (70,000 in 1978). Anyways, the quartz revetment wall is today the most striking feature of the monument. The decision to reconstruct the revetment wall in this fashion has not been without its critics, as I shall return to later.



**FIGURE 14 - NEWGRANGE AERIAL (NEWGRANGE.COM)**

The cairn itself was cleared of all roots and vegetation, leaving the green turf grass on the top. Behind the new concrete wall, a series of pipes were laid to prevent pooling of rainwater in the future.

The passage was also completely restored and reinforced. A few orthostats had to be “returned to the vertical”, as Prof. O’Kelly calls it. In order to do this, the entire *roof box*

had to be temporarily removed. A few surviving art pieces ended up under the level of the new floor, but view-slots were installed for any researchers to have quick and easy access. Several drainage pipes were also installed, as several springs of water were discovered. Around the entire passage a concrete box was made. This concrete box serves a structural purpose, hopefully keeping the entire passage from crumbling under the weight of the cairn.

The chamber was also fitted with drainage pipes about 2.8 m above, and then covered with cairn material. The team notes that the ancient builders of the monument also took steps to keep the interior of the tomb dry, as evidenced by water-grooves and chalking of joints.

The *roof box* was put back into place in 1967. The team started discussing possible uses for the *roof box*. A possible solution at the time seemed to be that the *roof box* served as an entrance or place of leaving offerings when the entrance slab was closed. Later they discussed the possibility of the rising sun hitting the roof-box and the cairn interior at certain dates. A possible connection to the midsummer phenomenon at Stonehenge was ruled out due to the difference in alignment. The South-Eastern alignment of the monument indicated the possibility of a winter solstice phenomenon.

On December 21<sup>st</sup>, 1969, the team made a recording inside the chamber. Here is an excerpt from the transcript from O'Kelly, M. J., & O'Kelly, Claire (1982):

*At exactly 8.45 hours GMT the top edge of the ball of the sun appeared above the local horizon and at 8.58 hours, the first pencil of direct sunlight shone through the roof-box and along the passage to reach across the tomb chamber floor as far as the front edge of the basin stone in the recess. As the thin line of light widened to a 17cm-band and swung across the chamber floor, the tomb was dramatically illuminated, and various details of the side and end recesses could be clearly seeing the light reflected from the floor. (p 123-124)*

The findings were further validated by Dr. Jon Patrick, who surveyed Newgrange and concluded that the winter solstice phenomenon was active at construction. Two of the orthostats in the passage were partially blocking the sunlight into the chamber. O'Kelly and his team knew that these orthostats were more vertical in the past, meaning that the beam of light might have been as broad as 40 cm in the past, not 17 cm as today.

O'Kelly and his team conclude their report by proposing that Newgrange is a temple to the dead, or a "House of the Dead". They support this conclusion by citing the efforts of the ancient builders to keep the interior dry, the several internments inside and the winter solstice phenomenon.

## 3.3 Empirical evidence

The following publications constitute the data for the analysis. I have written a short summary of each publication, trying to draw out where the author stands on the matter of Newgrange and the reconstructions. I have elected to use only written sources as this thesis is not about ascertaining the authenticity of the monument, rather to illuminate the discourse. Therefore, I will mostly use archaeological publications. I have also included two news articles, a YouTube video, and a Facebook post. This is to show that the discourse is not limited to the professional environment and has "leaked out" to other platforms.

I have also been relying on information from the web, such as Academia.edu and Newgrange.com, to give more background on the actors who are part of the analysis.

### 3.3.2 Archaeological publications

Gibbons (Myles), Gibbons (Michael): The Brú: a Hiberno-Roman cult site at Newgrange?

In Emania 23 (2016)

The paper criticizes O'Kelly's assumption that the site was neglected and not in use throughout Celtic and Roman periods. The authors suggest that glass beads and other later finds in and around Newgrange, Dowth and Knowth corroborates this view. Especially the Iron Age burials at Knowth. They also include the fact that Brú na Bóinne long have held magical properties in early Irish folklore to be an indication of later use of the site.

Hensey, R. (2015). First light: the origins of Newgrange. Oxbow Books.

Prof. Hensey proposes that O'Kelly was right about the solar alignment at Newgrange. The author draws lines to the earliest passage tombs at Carrowmore and Carrowkeel to show a linear and incremental evolution of the monuments in Ireland. He concludes his book with this statement:

What was Newgrange for? The builders told us: it was about light; it was about the sun; it was about life. The wonder is that their message was delivered. This could only happen because of the knowledge and skills gained through hundreds of years of imagining and constructing similar monuments. It is that tremendous ability, and the powerful vision that lay behind it, which has allowed Newgrange and similar sites to survive and permit us to see something of their story. Newgrange was not the first light, or the only light, but it undoubtedly was one of the brightest. (p 159)

Stout, G. (2002). Newgrange and the Bend of the Boyne: Vol. vol. 1 (p. 233). Cork University Press

The author goes through the history of the Bend of the Boyne, from earliest known Mesolithic settlement to 16<sup>th</sup> century mansions. The reconstructions of Prof. O’Kelly are mentioned in the section on Newgrange. The author does not directly criticize Prof. O’Kelly, but highlights the controversies surrounding the revetment wall and the solar alignment phenomenon.

Cooney, Gabriel. (2006). Newgrange – a view from the platform. *Antiquity*, 80(309), 697–708.

The author takes a critical look at the modern quartz revetment wall. The paper investigates if there is another explanation for the layer of quartz found by O’Kelly in the cairn slip and concludes that the near vertical revetment wall in the past is very unlikely. The author then suggests that the quartz/granite layer instead constituted a platform on the ground.

Eriksen, P. (2006). The rolling stones of Newgrange. *Antiquity*, 80(309), 709-710

The author builds on Cooney’s (2006) idea that the cairn slip most likely never was a vertical revetment wall, but rather evidence of a mound in several phases. A possible evidence of continual use of Newgrange, even after the passage tomb no longer was visible.

### 3.3.3 Other media

<https://www.thejournal.ie/neolithic-showdown-3155424-Dec2016/>

<https://www.irishtimes.com/news/ireland/irish-news/newgrange-sun-trap-may-be-only-50-years-old-says-archaeologist-1.2913483>

These two newspaper articles interview both Michael Gibbons and Dr. Hensey. The topic is the solar alignment phenomenon. The OPW denies any allegation that the solar alignment phenomenon is no more than 50 years old.

Gibbons, Michael (20??, January 20.) Facebook.com  
[https://www.facebook.com/permalink.php?story\\_fbid=3890899394306840&id=100001604542586](https://www.facebook.com/permalink.php?story_fbid=3890899394306840&id=100001604542586)

Mr. Gibbons compares the reconstructions on Newgrange to Knossos and Visby, to illustrate that the monument is inauthentic as it stands.

Hensey, Robert [Talks at Google]. (2018, July 13). Home [Talks at Google]. YouTube. Retrieved 04.04, 2021, from [https://www.youtube.com/watch?v=Lyg7miRrxPA&t=1181s&ab\\_channel=TalksatGoogle](https://www.youtube.com/watch?v=Lyg7miRrxPA&t=1181s&ab_channel=TalksatGoogle)

Dr. Hensey holds a lecture on Talk at Google, a very popular lecture series on YouTube. In the lecture he goes through the history of the Irish passage grave tradition. He talks extensively about Newgrange and the reconstructions. He does critique Prof. O’Kelly for some of his methods, but as a whole reaffirms the Solar alignment phenomenon as authentic to the Neolithic.



## 3.7 Chapter Summary

We have seen that the Brú na Bóinne has been inhabited by humans since at least the Mesolithic (Stout 2002). The monuments coincide with Neolithic period, but there is good evidence for Newgrange being in use throughout the ages.

For a long time, the identity of the builders was thought to be of Celtic origin. Prof. O'Kelly and his team performed extensive excavations and reconstructions in the period from 1962 – 1975 and the monument was firmly placed within the sphere of Neolithic monument builders dating back over 5000 years.

The age of the monument combined with the discovery of the solar alignment phenomenon made it increasingly popular as a tourist destination. The concentration of other passage tombs and the prolific art were criterion set by UNESCO to declare The Brú na Bóinne a World Heritage Site in 1993.

Still, there is debate on several topics regarding the authenticity of the monument. The solar alignment phenomenon, the revetment walls, and the significance of the monuments outside of Neolithic context are the main points of contention, identified by the author.

I will now give a presentation on which theory and methodology I have chosen to enlighten the research questions of this thesis.

## 4. Theory and methodology

I have chosen to answer the research questions using Actor-Network Theory (ANT), more specifically a Network Analysis. I shall now explain why I have chosen this approach and what it entails.

The main attraction of ANT in the context of this thesis is that it can be applied to case studies and does not call for any pre-existing knowledge or assumptions before making a Network Analysis (Latour 2005). The reason being that relations and ideas are constantly being formed in the network by the “*performativity*” of its “*actors*” (ANT terms will be explained shortly) and a researcher does not need *a priori* knowledge to look at the situation in the “*network*” at any given time. One instead observes as properties emerge from the interactions or “*translations*” of the actors.

If you will, this allows the researcher to take a snapshot of any given situation and can extract knowledge from a Network Analysis.

Another attraction to this theoretical and methodical approach comes from its flexibility to describe interactions between technology and technology-users (Steenberg 1996). This has given birth to terms such as “*hybrids*” and “*quasi-object*”, which may sound confusing at first, but makes sense in a way. For instance, an archaeologist with a computer can be described in the network as a singular actor (a “*hybrid*” of man and technology) and may have different goals than the same archaeologist without a computer. In my thesis I will look at human actors who also represent institutions. ANT allows me to call the actor a human-institutional hybrid with combined goals, perhaps even conflicting goals. Finding something like that would surely highlight some questions later.

To summarize; ANT is not a fully-fledged theory, but rather flexible a toolset for extracting knowledge that allows the researcher to go in without *a priori* assumptions.

I am also mindful of ANT’s limitations and will give a short summary of its most well-known criticisms. First, an introduction to ANT and key concepts are in order.

## 4.1 Actor-Network Theory (ANT) – A short introduction

ANT was developed in France in the early 80's and is based on previous work in the field of Science and Technology studies. Michel Callon, Bruno Latour, John Law and Annemarie Mol stands as some of the main proponents and developers of ANT.

Bruno Latour, says that post-modernisms greatest mistake was to create false dichotomies, in the quest to overcome them (Latour 1996). Thus, ANT may be seen as a reaction to post-modernist thinking in Europe at the time and offered a fresh view on sociology. STS (Science and Technology studies) and ANT-theory sees society and technology as intertwined and uses the term "technosociety". The term often being used to describe societies who are highly dependent on technology, but in this instance, it literally means technology and society intertwined. It is in fact a logical conclusion, seeing that both society and technology are part of our epigenetics, what Richard Dawkins (1989) calls "memes". Our "memes", meaning all our culture and knowledge we pass on without genes. ANT-theory aims to understand society within its place in the network, and not to describe it in degrees of nature/nurture.

Although the work "theory" is in the name ANT, it is in fact not called a "theory" by the main proponents. ANT seeks instead to be a toolkit, hoping to avoid deterministic worldviews and a-priori assumptions. I would like to quote Annemarie Mol (2010) as her explanation is golden here:

ANT is not a theory. It does not give explanations, and neither does it offer a grid or a perspective. Since "ANT" has become an academic brand name, many authors start their articles with the promise that they will "use actor-network theory". Let me disappoint them: this cannot be done. It is impossible to "use ANT" as if it were a microscope. "ANT" does not offer a consistent perspective. The various studies that come out of the ANT-tradition go in different directions. They do different things. They not only talk about different topics (electric vehicles, music, anaemia, organisations, cheese, childbirth, blood pressure in the brain and so on) but also do so in different ways. If studies relate to earlier ones, this is not in order to consolidate or expand on "a theory" that is thereby rendered more and more solid. From one study to the next, there are shifts. These cannot be mapped on a single line, they go in different directions and what I have presented so far is not a summary, but rather a snippet of the work that has been done. Over the years new questions are constantly taken up and new concerns addressed. Thus, do not think of it as a scheme or a system, think of it as a kaleidoscope. (p. 261)

According to Latour, archeologists should pay particular attention to ANT. This is because archaeologists have two false dichotomies to overcome: nature-society and past-present.

## 4.2 Key terms in ANT

There are a few very key concepts and terms in ANT and STS that I thought might be useful to lay out before moving further. A reader who is completely new to ANT-terms is forgiven if confused by some of these words, as they have a different meaning out of ANT-context.

### 4.2.1 Actors, quasi-objects, and hybrids

An actor is a basic building block of the network. An actor can be any: object, person, idea, metaphysical concept, or combination of the above. They are identifiable by their agency within the network and represent real things that can be studied. Here I chose to borrow a definition from Annemarie Mol (2010):

Pasteur was a case in point. [...] All kind of people, journalists, farmers, technicians, vets, were involved in the discovery/invention of anthrax and the inoculations against it. All kinds of things were active as well, Petri-dishes, blood, transport systems. But French towns tend to have a "rue Pasteur" rather than a "rue Petri-dish" and there are no squares that are named after the first cow inoculated against anthrax even though she was the one risking her life. Pasteur was singled out as the hero, the responsible actor behind the pasteurization of France. Bringing out that he, like any general, could only fight thanks to an entire army of people and things, is a typical ANT move. Against the implied fantasy of a masterful, separate actor, what is highlighted is the activity of all the associated actors involved. A strategist may be inventive, but nobody acts alone. (p. 256)

In a simple way, you can say that the term actor in ANT is a way of recognizing the Petrie-dish in Mol's example. The kind of Petri-dish, according to ANT, might even affect the whole experiment.

Here is another analogy of my own making. Let us say you are studying how sport fishing affects population of fish in a river. In ANT the fisherman, the fish and the river are all considered actors, with their own agendas.

Actors, in accordance with network theory, can themselves be intertwined, and these are considered successful interactions of translations. Becoming quasi-objects, i.e., "it" in a game of tag (Serres & Schehr 1982).

In our example, a quasi-object would be the act of "fishing" itself, as it requires both a person, the idea of fishing for fun, the technology, and tools. I.e., it consists of several actors who have successfully banded together. A quasi-object emerges in a network after successful "translation".

It is useful to note that quasi-object and the term "hybrid" is sometimes used interchangeably, although the latter seems to be used more in studies on contemporary technology.

To summarize, the term actor can be used to describe almost anything affecting the network and other actors around itself. The main point is to adhere to the principle of *generalized symmetry* and be consistent in terminology.

### 4.2.2 Translation

The concept of *moments of translation* comes from Callon (1986). In this paper, the author describes a situation in St. Brieuc Bay, France, where a group of researchers are to collaborate with local fishermen to grow the scallop *pecten maximus* in a sustainable way. Before this research, the ocean floor was dredged routinely, making the rebuilding

of *pecten maximus* populations slow. The researchers set out to co-operate with the local fishermen to study the mollusk, and to successfully make *pecten maximus* attach itself to the collectors.

The actors' interactions are described in the terms of *moments of translation*. According to Callon, there are four of these *moments*: *problematization*, *interessement*, *enrollment* and *mobilization* of allies

"This endeavour consists of four moments which can in reality overlap. These moments constitute the different phases of a general process called translation, during which the identity of actors, the possibility of interaction and the margins of manoeuvre are negotiated and delimited." (Callon 1986 p. 6).

It is through these four moments that we identify the actors in the relevant network and their goals.

*Problematization*: The actors will try to establish themselves as OPP's, making themselves indispensable. Note that Callon makes no distinction if the actors initial *problematization* is voluntary or not. "Will *pecten maximus* larvae attach themselves to the collectors?" is the central question in The Network Callon is describing.

*Interessement*: Through wanting to become the Obligatory Passage-Point, an entity or actor starts to align other actors to its initial *problematization*, strengthening bonds or breaking them

*Enrollment*: Successful alignment of other actors is the third moment. This can be voluntary or involuntary, introducing power structures to the translation.

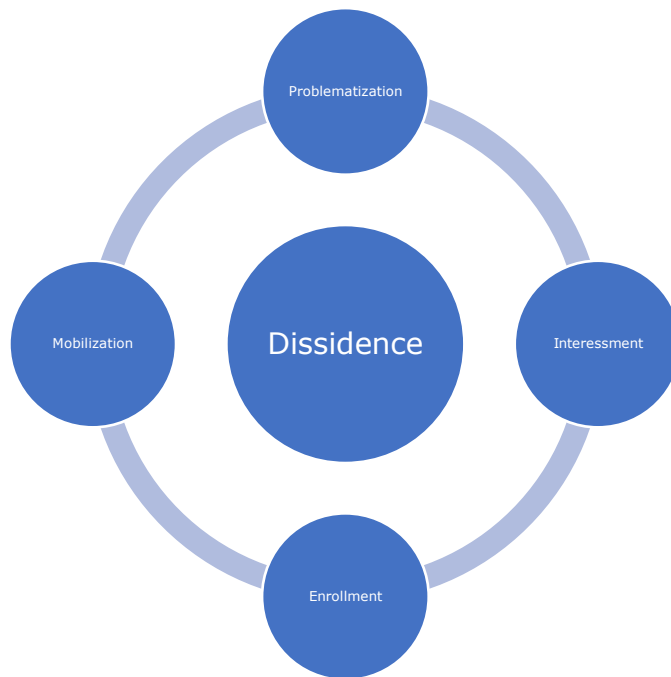
*Mobilization*: Now that all relevant actors are enrolled, all actors must be coordinated in such a manner that they act as one "actor". The alliance is fully formed, and thus stronger than an alliance with actors not fully *mobilized*

So, we see that finding OPP's is a key concept in ANT as it will reveal how the *translations* in the network occurs.

Note that Callan uses the term "entity", but this thesis will use the term "actor".

*Dissidence* - Betrayals and controversies: Controversy, in the context of Callon's analysis, is the term used to describe controversies. A controversy can be explained by the betrayals of actors in the network no longer representing the "alliance". In Callon's example of the fishermen and the scallops, if the scallops stop anchoring their larvae to the collectors, it is seen as an act of *dissidence*. Therefore, we see that *dissidence* can be performed both intentionally and unintentionally by the actors.

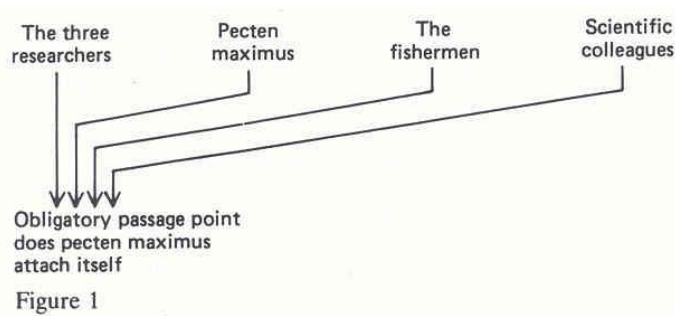
To summarize, *translations* are how Callon describes the interactions of the actors in the network. In these terms, even seemingly complex situations with multiple actors, according to Callon, can be described through these *four moments*.



**FIGURE 15 - THE MOMENTS OF TRANSLATION**

If we illustrate the *moments* in this diagram, we see that *dissidence* is always lurking and could come into play at any *moment of translation*, weakening that alliance. Note also that Callon states that the *four moments of translation* can overlap, meaning that an actor can be in the process of being *interested*, but simultaneously in a state of *dissidence* or being *mobilized* by other actors.

### 4.2.3 OPP – Obligatory Passage-Point



**FIGURE 16 – FROM CALLON (1986) P. 20, FIGURE 1**

An OPP in is a point in the network, material or metaphysical, acting as a sort of funnel that most translations must go through. The establishment of an OPP signals that successful translations have been made, either by force or cooperation. In the example from Callon, we see that the OPP is “does pecten maximus attach itself?”. The entire Network hinges on pecten maximus’ ability to attach and grow, thusly called the Obligatory

Passage Point.

Depending on how one approaches the analysis, the OPP can be a central question, like in Callon’s example, or an actor or quasi-object, like the combination of researchers/fishermen and *pecten maximus*. In this thesis, I shall analyze the OPP as the latter, instead using “the central question” as an introductory point for the actors involved.

### 4.2.4 Agency

The concept of agency in ANT is almost the same as in spoken language, that of free-choice or influence. The exception being that inanimate objects can have agency in ANT. A rock can have agency, meaning a direct effect, on a geologist working with it. This does not mean however that proponents of ANT believe that the rock itself has some form of will or consciousness, rather that it has a tangible, and therefore identifiable effect on the geologist. This becomes useful in STS because it explains why certain scientific endeavors will never be free of subjective, or human influence, as the geologist in turn will have agency on the rock, thus making them part of a network.

Latour (1999) proposes a “parliament of things” where non-human and human actors convey their messages, and this messaging is the actor’s agency in action. In this capacity, agency becomes a tool to investigate controversy (Latour 2005).

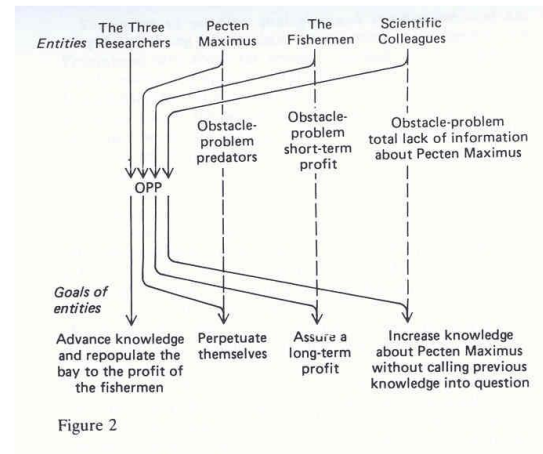
## 4.2.5 Network

To be understood properly, any idea, person, discourse, or object needs to be analyzed in the context of its place in the network and the properties that emerge thereof. The map of connections that forms when performing an ANT analysis of the actors and quasi-objects and their relations, is the network itself. The term pre-dates ANT and is an integral part of many STS-theories. The network is often illustrated in various forms to help the researcher and reader understand the connections that form. I have once again borrowed a definition from Mol (2010) as it really is poignant:

For a technology to succeed, it must somehow interest financiers, builders, users. In order for a network to form, associations have to be made. This is hard work. And one of the reasons that this work is so hard, is that "the electric car" is not introduced into an empty world. There are various "modes of transportation" already. How do they relate? (p. 259)

The quote is taken slightly out of context. Annemarie Mol is trying to illustrate the fact that new technologies cannot succeed on their own, in this instance the electric car is mentioned. For myself, I always imagine the announcements made by Steve Jobs when rolling out a new Apple product to screaming fans. Steve Jobs, in this example, mobilized technology fans to create a demand where there was none.

To summarize, no one actor can succeed alone. A network is a natural evolution of the enactment of the constituent actors.



**FIGURE 17 – FROM CALLON (1986) P. 20, FIGURE 2**



## 4.3 Criticism of Actor-Network Theory

Like any scientific method and theory, Actor-Network Theory has been criticized and heavily modified since its inception in the French post-structuralist thinking in the 1980's (Muniesa 2015) and later as a reaction to post-modernism (Latour 1997). Even Bruno Latour himself once said there are four things wrong with Actor-Network Theory; "Actor", "Network", "Theory" and the hyphen (Latour 2005), although he later retracted the statement.

One of the key criticisms of ANT is its lack of any standard or orthodoxy. Quite simply, there is no standard approach or method to performing an ANT-analysis. A fact I have been made painfully aware of in trying to find my own approach to tackling the research questions. This is seen as problematic, obviously, because how could one replicate the results without any standard methodology? Proponents of ANT will probably claim that this is exactly why ANT is so flexible and applicable to almost any situation. For me personally it was a challenge finding the best approach and we must keep these criticisms of ANT in mind going forward.

Another criticism is that ANT sees any property pertinent to the analysis of the given subject as emergent from the actions and translations of the actors in the network, not accounting for pre-existing structures like power-hierarchies (Whittle and Spicer 2008). This is perhaps explained by the fact that ANT was developed as a direct response to Euclidean and Post-modernist dichotomies – choosing purposely to disregard notions of pre-existing hierarchies. The problems of such an approach are that the ANT-researcher might become myopic and perhaps underestimate pre-existing axioms. Then again, an ANT-proponent might answer: "Yes, I wish to make no assumptions going into the study", claiming that is the whole purpose of applying ANT.

The term "agency" – especially regarding non-human entities and how they influence human actors, has also come under criticism, as the term implies that non-human entities have intent. ANT proponents might answer such criticism stating that non-human actors do indeed have "agency", but not intent. And more importantly, that the interesting things happen in the interactions, or "translations", between actors that are both non-human and human.

## 4.4 How does ANT help solve my questions?

I have elected to follow a particular path in my analysis, first introduced by Michel Callon in his publishing from 1986 titled: "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay". I have chosen this method, of sorts, because to me it gives a clearer "recipe" for constructing the analysis. Callon follows the actors through what he dubs the four moments of translation (see section 4.2.2). By describing the actors through these moments, Callon in the end gets a clearer picture of The Network entailing the Scallops, fishermen and scientists. The network is exactly what we are trying to describe at the end of the analysis.

Some readers might be thinking: "Why base the analysis on a publication from 1986?" And they are right to be skeptical seeing that the field of ANT has evolved much since then. I found that later authors often reference back to Callon (Latour 1999 & 2005), (Mol 2010) & (Law 1999). So, the up-to-date interpretations are at least inspired by the work I am basing the analysis on.

In addition, I chose Callon's method because gives a clear recipe on how to perform the analysis, at least for myself. To make up for using such an old method, I will try to fill in with references of more recent work on the subject.

The paper by Callon (1986) also states that:

The object of this paper is to present an outline of what is now called sociology of translation and to show that this analytical framework is particularly well adapted to the study of the role played by science and technology in structuring power relationships. (p. 1)

In theory, this analytical framework should be sufficient to accurately describe the power relationships of the actors involved in the discourse and thus illuminating the research questions.

## 4.5 Methodology

Callon outlines three principles for such an analysis:

- A) *Generalized agnosticism* – No *a priori* power structures are to be presumed. The researcher instead unveils power struggles – described as translations – in the analysis itself.
- B) *Generalized symmetry* – One must apply the same vocabulary to all actors – human or nonhuman – and not change the grid of the analysis.
- C) *Free association* – Actors may combine, dissolve, or change during the process described in the analysis. This gives a degree of freedom, not locking them into fixed roles, allowing the researcher to study processes in depth.

Expanding on these principles, and following Callon's example, I see the following outline for an analysis. The outline is tailored to enlighten the research questions:

- 1. What exactly is the controversy surrounding the authenticity of Newgrange?**
- 2. Who are the most prominent actors involved in the discourse on the authenticity of Newgrange?**
- 3. How do the actors position themselves in The Network?**
- 4. Can we say anything about the flow of information in the discourse?**

For 1. I will extract the main points of contention from the data described in section 3.3 by literary analysis.

For 2. The results of 1. will indicate who the most prominent actors are and allow us to say why they are relevant in this context. The principles of *free association* and *generalized symmetry* tells us that we can combine and dissolve actors at will during the analysis.

For 3. and 4. Here we must follow the actors' interactions in light of *the four moments of translation*. Here we must examine the strength of the alliances and see who tries to *mobilize* who. The flow of information will tell us about what access the actors have to the monument and what we can consider to be the Obligatory Passage-Point. We must remember to adhere to the principle of *generalized agnosticism*, making as little assumptions about power structure *before* analysis.

This forms the basis for the analysis and after performing these steps, a general discussion is in order, with a more fluid writing style, to synthesize answers to the research questions.

## 5. Analysis

### 5.1 Main points of contention in recent discussions

From going over the recent archaeological publications, I have identified three main points of contention. I will not give too much space to the technical details here, and instead invite the reader to see section 3.3 for reference.

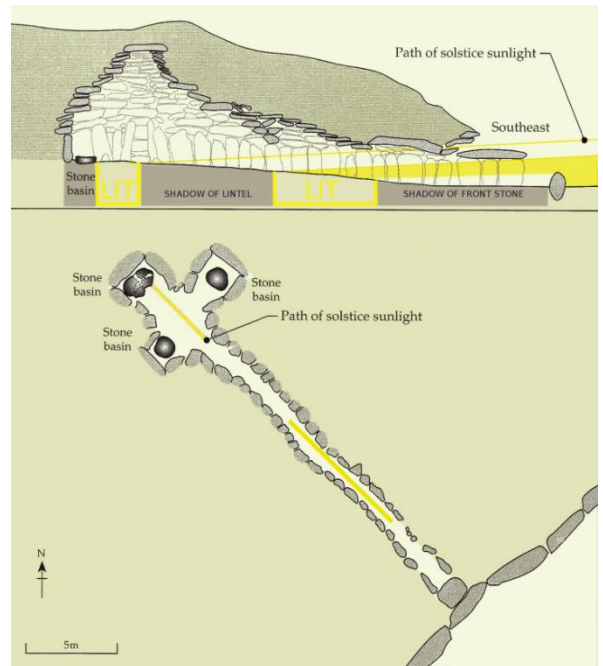
As I understand the current debate, the three main points of contention are:

- 1: The solar alignment phenomenon
- 2: The revetment walls
- 3: The significance of Newgrange outside of context of The Neolithic

These are listed in no particular order of significance, as I have not done a literary analysis to give any quantitative data on the subject.

### 5.1.1 The solar alignment phenomenon

First described by Prof. O’Kelly in 1967 (O’Kelly, M. J., & O’Kelly, Claire 1982) it has been a topic of debate ever since. One side argues that the solar alignment phenomenon was *discovered* 50 years ago, while the other argues it might be *invented* 50 years ago. Authentic vs. not authentic, to put it simply. An article by Michael and Myles Gibbons (2016) was particularly critical of the phenomenon followed by a rebuttal by the OPW and Dr. Hensey when interviewed by The Irish Times (2016) and The Journal (2016). The critics of Prof. O’Kelly say that the orthostats were raised into an “unnatural” position, and that this rising and subsequent cleaning of the roof-box made an opening that serendipitously created the solar alignment phenomenon witnessed each year around winter solstice. Note that the critics do not critique O’Kelly for shoddy workmanship, as almost everyone agrees that the reconstructions at least support the chamber very well, and will continue to do so for a long time. A reversal of the solar alignment phenomenon would mean that the entire monument and complex must be reinterpreted, as much of the importance of Newgrange, at least in the public eye, is tied to this phenomenon.



**FIGURE 18 - NEWGRANGE PASSAGE TOMB (STOUT 2002 P. 42)**

### 5.1.2 The revetment walls

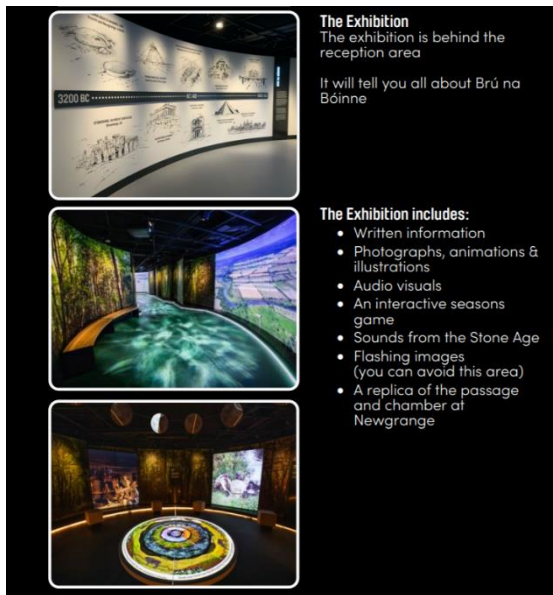


**FIGURE 19 - NEWGRANGE BEFORE/AFTER RECONSTRUCTION (UNKNOWN COMPOSITE)**

As we can see in these before and after pictures, the reconstructions of Prof. O’Kelly made dramatic changes to the monuments profile. Visitors will now see the white, quartzite revetment wall from afar. It seems the critics of Prof. O’Kelly agree with the original interpretation that the quartzite was found *in situ* and was at one point part of the monument. However, the quartzite may date to much later than the Neolithic and it is not at all clear if the quartzite was used in the wall, but rather as a fill or top of a platform (Cooney 2006, Eriksen 2006). If this turns out to be true, that will mean that the most striking feature of Newgrange is indeed inauthentic. Although I have singled out the revetment walls as one of three main points of contention, I think this criticism also

says, in some part, that one must view the monuments in a broader temporal context.

### 5.1.3 The significance of Newgrange outside of context of the Neolithic



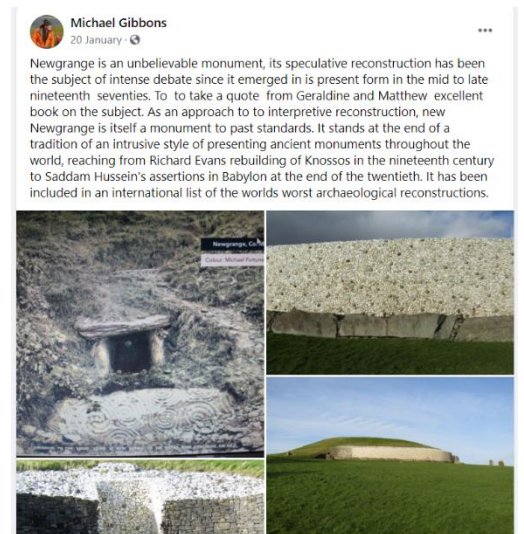
**FIGURE 20 - VISITORS CENTRE EXHIBITION SCREENSHOT (FROM BRÚ NA BÓINNE CHAMBER TOUR SOCIAL GUIDE)**

If Newgrange is not authentic as it stands now, maybe one should consider disseminating other periods of the monument's history to the public. This is one argument that is gathering force in the current discourse (Stout 2002, Stout & Stout 2008). As we have seen with the two previous points, there is a growing sense that the Neolithic "sun-temple" that is presented to visitors is inauthentic. In addition, the knowledge of the later periods of the site, especially the Bronze-age and Hiberno-Roman periods (Gibbons, M. & Gibbons, M. 2016). Geraldine Stout has long studied the Bend in The River Boyne, over many time-periods. I was myself lucky to get a tour of the mansions and other passage tombs of the area and can personally attest to her knowledge. To summarize, this criticism is not specifically about the reconstruction, rather how the monument is conveyed to the public in modern times.

## 5.2 Discussions in other media

Since I have included other material than strictly professional, I will now give a short overview of what the discourse looks like outside professional circles. See section 3.3.3 for reference. I have elected to include this part to show that the discourse has “spread” to other media and that therefore the analysis should account for this. As far as I can tell, the discourse has mainly been picked up by the printed press, but we can also see individual actors using social media as a platform as well.

Perhaps the most outspoken critic of Newgrange in modern Irish archaeology is Michael Gibbons. He not only voices his concerns in archaeological publications, but also lets his opinions on the subject be known in newspapers and even on social media. In a Facebook post (pictured) he even ranks the Newgrange reconstructions on par with the worst reconstructions in archaeological history, citing Geraldine and Matthew Stouts (2008) book.



**FIGURE 21 – MICHAEL GIBBONS’ FACEBOOK POST (20??, JAN 20.)**

The debate is also active in the Irish news media, especially around winter solstice. A newspaper article from the Irish Times (2016, December 21) looks at the paper published by Gibbons & Gibbons in 2016. They interview both Michael Gibbons and Robert Hensey about Newgrange’s authenticity. Mr. Gibbons reiterates his beliefs that the winter solstice phenomenon is a “50-year-old construct”. Mr. Hensey defends O’Kelly’s decision making, saying that he worked under a different time with few of the guidelines modern reconstruction efforts have. In the end Robert Hensey also defends the winter solstice phenomenon.

The day after, another newspaper article is printed in The Journal (2016, December 22) in which the OPW answers Mr. Gibbons’ allegations. They fend off his criticism of the solar phenomenon as “entirely untrue”. Dr. Hensey is asked for quotes on the subject and once again defends Prof. O’Kelly and the reconstructions.

He held a lecture on Newgrange in the popular YouTube series “Talks at Google” where he defends the reconstructions and does not mention the controversy surrounding the alignment. (YouTube.com 2018, July 13).

## 5.3 Introducing the actors

Here I will present the actors that I think are relevant to this thesis. I will give a short introduction to each actor and some reasons for why I think they are relevant.

Following the principle of *generalized symmetry*, we find both human and non-human actors in The Network surrounding the current discourse on the authenticity of Newgrange.

### 5.3.1 Newgrange

This one goes without saying. It is the monument central in the discourse. According to ANT, non-human actors do indeed have agency and we might surmise that the monument itself has a certain attraction with over 200.000 visitors annually. Yes, it has agency, but not intent, as we learned earlier. Its age and significance as a “sun worship temple” can also be said to be part of the monument’s agency.

I briefly considered including Professor O’Kelly as an actor, but later realized that him and his team do in fact still have agency in The Network. I mean that the reconstruction work on the monument itself is Professor O’Kelly and his teams’ agency, meaning influence, on the current discourse, originally giving rise to the discourse itself. So, when I reference Newgrange in the analysis, I mean it as a sort of quasi-object with several modes of agency on the discourse, also including the work done by Professor O’Kelly and his team from 1962-1975 and subsequent publications on the excavations.

### 5.3.2 Human actors

My aim here is not to offend anyone nor single out any human actors. Either way, I think it is fair to give a short summary of their professional careers and how they relate to the current discourse on Newgrange. See section 3.3 for a short summary of the recently published materials of these actors.

The reason I have selected these actors is because they have all been active recently and have contributed to the discourse with written material. Some have published more than others and it could therefore be argued to some have more “authority” on the subject. But, following the principle of *generalized agnosticism*, such “authority” should not be taken into the analysis.

#### Geraldine Stout

Considered an expert on the Boyne Valley area, she is an advocate for understanding the broader cultural context of the site. She has also criticized some of the decisions made by Prof. O’Kelly and concurs that further investigation is needed.

#### Gabriel Cooney

A department member of the University College Dublin, UCD School of Archaeology (Academia.edu 2021c). Has published an article on the subject in which he is critical to the quartzite revetment wall.



### Palle Eriksen

A Danish archaeologist. Published a follow-up paper to Cooney (Ibid.)

### Michael Gibbons

Michael Gibbons is an independent archaeologist who has served on both the Archaeology Committee of the Heritage Council and the Folklore of Ireland Council (Academia.edu 2021a). He is also currently operating a tour company with his wife, selling tours in the Boyne Valley including Newgrange. He was also the co-director National Sites and Monuments Office of Public Works.

### Dr. Robert Hensey

Dr. Robert Hensey is professor of archaeology at NUI Galway (Academia.edu 2021b). He is perhaps the most vocal supporter of Prof. O'Kelly, often defending his actions in public. Like Gibbons, he also uses public media as a platform for discussion about Newgrange. As mentioned earlier, he held a lecture on Newgrange in the popular YouTube series "Talks at Google" where he defends the reconstructions and does not mention the controversy surrounding the alignment. (YouTube.com 2018, July 13).

## 5.3.3 Institutional actors

There may be several other institutional actors who are relevant for this analysis. But we must select the most relevant ones to keep focus. I think the following actors are relevant here:

### The Office of Public Works (OPW Ireland)

The Office of Public Works was established in 1831 and lists its responsibilities as estate portfolio management, flood risk management and management of heritage sites in Ireland. It states on its website (Gov.ie, n/d):

The Office of Public Works is responsible for State owned and protected National Monuments along with important historic properties in Ireland. OPW Heritage Services is tasked with conserving and presenting these heritage sites to visitors which is an integral part of brand Ireland and our tourism product. (frontpage of link)

The Office of Public Works has other responsibilities, but we are interested in its responsibility to conserve and present.

### UNESCO

While UNESCO does not have an active role in the discourse to date, they are indeed a relevant actor by the fact that they declared Bru na Bóinne a world heritage site in 1993. This can be seen as a confirmation of the site's authenticity, or a successful translation. Therefore, they have agency in this network. However, the practices of UNESCO have changed since 1993. In 1994, ICOMOS published the Nara document on Authenticity, meant to supplement and expand on the Venice Charter of 1964.

The Nara document states:

"Conservation of cultural heritage in all its forms and historical periods is rooted in the values attributed to the heritage. Our ability to understand these values depends, in part, on the degree to which information sources about these values

may be understood as credible or 47 truthful. Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, is a requisite basis for assessing all aspects of authenticity." (ICOMOS, 1994, p.46 – 47)

So, we can attribute the following goals of UNESCO in the context of Newgrange.

#### The Bru na Bóinne Visitors Centre

The Visitors Centre is essential in how Newgrange is communicated to the public. The only way to visit the passage tomb itself is through The Visitors Centre with a sanctioned guide. They are in fact the actors who "perform" the past of Newgrange to visitors. We can therefore argue that The Visitors Centre is an OPP, but only for the public. So, in this context they do not limit access to the monument for professionals.

### 5.3.4 Other relevant actors

#### The Public

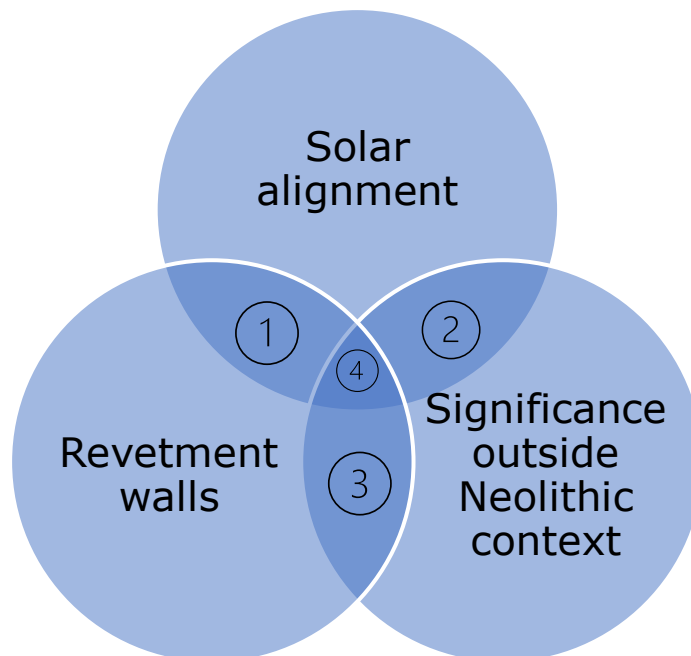
I choose to include "The Public" as an actor. I define "The Public" as a quasi-object, by no means homogenous. Visitors to the monument, readers of articles about the topic and opinionated Facebook users can all be grouped under "The public". But in the context of Newgrange, I think it is more relevant to view this actor as "The Irish population". I have a feeling that the other actors also have this view when navigating the discourse. We shall see soon if this picture fits the frame.

#### The Irish media

I include The Irish Times and The Journal as relevant actors. In section 5.2 we see that the discourse on Newgrange is "leaking out" from archaeological publications to more mainstream media and both sides of the argument are guilty of this.

## 5.4 The actors place in The Network

**TABLE 1 - VENN-DIAGRAM OF POINTS OF CONTENTION**



This simple Venn-diagram illustrates the three most important topics of contention regarding the authenticity of Newgrange after the reconstructions. I found the Venn-diagram helpful

I have grouped the actors criticizing the reconstructions of Prof. O'Kelly in the overlapping sectors, marked 1, 2 and 3 to illustrate that the actors overlap in their criticism.

In sector 1, It is difficult to see any clear overlap, but I would place Geraldine Stout here

In sector 2, I would place Geraldine Stout, Michael Gibbons and Myles Gibbons.

In sector 3, I would place Palle Eriksen and Gabriel Cooney.

This diagram shows us that reality is indeed complex and I hesitate to reduce or condense the actors any further by which point of contention they "belong to". Rather, this shows us that there is some sort of alliance forming here – united in a criticism of Prof. O'Kelly's work and interpretations. Therefore, we can loosely group the above-mentioned actors under a common statement: The monument might be inauthentic.

The thing to note is that I found no overlap in the center of the diagram in sector 4, meaning that the actors have no "unifying goal", so to speak.

**TABLE 2 - CRITICS**

<b>Newgrange might be inauthentic</b>
Geraldine Stout
Michael Gibbons
Myles Gibbons
Palle Eriksen
Gabriel Cooney

Later we will have to examine the strength of this alliance, namely when analyzing them in the context of *the four moments of translation*. But for now, they are grouped thusly.

On the other side of the debate, I have only identified Dr. Hensey as a human actor. As stated earlier, he argues that one must see Prof- O’Kelly’s work in the light of what knowledge they had available at the time. To be clear, I am not stating that Dr. Hensey is a “O’Kelly apologist”, merely that he seeks a more nuanced view of his work.

It appears the alliance on the other side of the discourse is formed mostly of the OPW, UNESCO and Dr. Hensey. At least in the sense that they do not allow any immediate reversals to the reconstructions done by Prof. O’Kelly. So, we can say that they are united in the following statement: Newgrange is authentic enough

**TABLE 3 - NON-CRITICS**

<b>Newgrange is authentic enough</b>
Dr. Robert Hensey
The Office of Public Works
Ireland
UNESCO

I hesitate to group The Visitor Centre here, as they would generally fall a level under the OPW in the bureaucracy. I would argue that the center also shapes any exhibitions or manuscripts for guides from whatever the OPW and UNESCO has highlighted as important parts of the monument and its history to disseminate to the public.

We have thus far identified two suspected alliances, although deeper analysis will reveal their strength. But what about the other actors I have included, The Public, The Irish Media etc.?

Thus far, I would argue that they are neutral in the discourse, but this may change if we later find evidence of *interestment* or *mobilization*. Remember, this is not a problem, because the principle of *free association* allows for this flexibility on the part of the actors. For the time being, we will group them as neutral.



**TABLE 4 - UN-ALIGNED**

<b>No established alliance</b>
The Public The Irish Media

So, we are left with Newgrange and The Visitors Centre. Without the principle of *general agnosticism*, we might have placed The Visitors Centre in the Newgrange is authentic enough-alliance, but we must find evidence in the *translations* if we are to do so. Therefore, Newgrange and The Visitors Centre stand as neutral, until otherwise evidenced. The Visitors Centre is a “point of access” for The Public, in the same sense that The OPW is for the researcher wanting access to Newgrange.

That means we have identified a sense of direction in the flow of information in The Network. The temporary view of the situation would look something like this:

**TABLE 5 - THE NETWORK - BEFORE ANALYSIS**

<b>Newgrange is authentic enough</b>	<b>Un-aligned</b>	<b>Newgrange might be inauthentic</b>
Dr. Hensey UNESCO	The Irish Media	Geraldine Stout Michael Gibbons
The OPW	The Public	Myles Gibbons Palle Eriksen Gabriel Cooney
		Visitor Centre  Newgrange

The arrows indicate “points of access”, or rather, flow of information in this Network. We see that the public has a different access to Newgrange than the trained archaeologists. To change anything about Newgrange or The Visitors Centre, access must go through the OPW. The Public must go through The Visitors Centre, evidenced by the compulsion to have a guide with you inside the passage grave.

It appears almost all information must flow through The OPW – and we know that in ANT this bottleneck of information flow is called The Obligatory Passage point, or OPP for short. We shall have to examine the strength of this OPP later.

## 5.5 The four moments of translation

We must now follow the actors through the four moments of translation, as described by Callan, to see how they interact in the network. Here is a reminder of the moments of translation:

*Problematization*: The actors will try to establish themselves as OPP's, making themselves indispensable

*Interestment*: Through its nature as an OPP, an entity or actor starts to align other actors to its initial problematization, strengthening bonds or breaking them

*Enrolment*: Successful alignment of other actors is the third moment. This can be voluntary or involuntary, introducing power structures to the translation.

*Mobilization*: Now that all relevant actors are enrolled, all actors must be coordinated in such a manner that they act as one "actor".

*Dissidence* – The term used to describe betrayal and controversies. *Dissidence* meaning dissidence towards and alliance.

By doing this, we will know something about the strength of these alliances and if they have tried to *enroll* other actors to their goal.

### 5.5.1 Newgrange is authentic enough

Let us begin with the alliance I suspect is most established, meaning they have successfully undergone several *moments of translation*. Of course, we must find evidence for this.

Earlier we suspected that almost all information must flow through The OPW, making it the OPP in The Network. Let us go through the *four moments of translation* for these actors and see what we find:

*Problematization*: The OPW, I would argue, is clearly indispensable. The flow of information must go through here for access to Newgrange. A successful transformation on The OPW's part.

*Interestment*: Here we should look for evidence that The OPW has aligned other actors. I think we find evidence for this in what Dr. Hensey has said and published – namely that he also stands with The OPW, strengthening the alliance. I would argue that The Visitors Centre stands with this alliance, showing no signs of *dissidence*. A sign of *dissidence* on part of The Visitors Centre, in my mind, would constitute something like "teaching the controversy", and I have not been able to find any evidence of this.

*Enrolment and Mobilization*: Here we should look for evidence of power structures where successfully aligned actors are "structured", and this can be voluntary or involuntary. If successfully enrolled they should start acting as "one actor", meaning for instance that they coordinate statements.

It seems to be that Dr. Hensey and The OPW sometimes act as “one actor”, evidenced by his book *First light: the origins of Newgrange* (2015), where he defends some of Prof O’Kelly’s decisions in the 1960’s. But I would argue that Dr. Hensey was *enrolled* voluntarily. Either way, in the context of this analysis, they have successfully translated the *four moments*. This alliance will therefore be very strong, according to Callon, and would need something like internal *dissidence* to start weakening it.

Thus far we have established that Dr. Hensey and The OPW Ireland are *mobilized*, meaning they coordinate statements and act as one. But what about UNESCO? They surely have a lot of agency, being a super governmental organization. I would argue that UNESCO has not had any active role in *mobilizing* allies to the cause, but it has also not shown any signs of *dissidence*. They have remained passive in the debate, deferring such matters to the local authorities, The OPW. By doing nothing, UNESCO reaffirms what it stated in the Nara document on authenticity and letting the Irish handle their own management. Insofar as UNESCO is concerned, Newgrange is authentic because The OPW says it is.

So, we can safely place UNESCO as a mobilized partner in the alliance, but it delegates its power to The OPW.

I think we are looking at a quasi-object here (ref. sections 4.2.1 and 4.2.3), we can call it UNESCO/The OPW/Dr. Hensey. This is because of their successful *translations*, and if we remember back to the initial *problematization*, they constitute the OPP in this Network. Callon uses a central question to unite its actors in his example of pecten maximus: “Will the mollusk attach itself?”. In the discourse we are analyzing, the central question would be: “Is Newgrange authentic enough as it stands?”. The quasi-object we have analyzed are united in their answer: “Yes”.

### 5.5.2 Newgrange might be inauthentic

Now let us examine the strength of the critics of Prof. O’Kelly – the critics we found consist of Gabriel Cooney, Geraldine Stout, Michael Gibbons, Myles Gibbons and Palle Eriksen. I suspect this alliance formed as *dissidence* towards the already established OPP – namely The Office of Public works.

*Problematization*: I think all these actors have a common goal – to challenge the established OPP, although, as we have seen, they have sometimes disparate and overlapping goals towards the monument itself. Callon tells us that this is the first *moment of translation* that these actors must navigate. They are united in the opinion that Newgrange might be inauthentic and want access to the monument, but as we have seen they must go through The OPW.

*Interestment*: We find evidence for interestment in cross referencing in the material I have selected. Eriksen (2006) and Cooney (2006) builds on each other’s arguments on the platform they suspect might be the origin of the quartzite layer found by Prof. O’Kelly. Building on each other’s argument is of course standard peer-review practice, but in the context of this analysis, I would argue that it is evidence for common *interestment* towards challenging the established OPP.

Gibbons & Gibbons (2016) also references Stout & Stout (2008) to challenge the solar alignment phenomenon, once again, together building on an argument to challenge the established OPP. Another evidence for *interestment* and *dissidence* towards the other alliance.

An interesting development, I think, is the attempt to *interesse* The Public through The Irish media and other channels such as Facebook and YouTube. I interpret this move as an attempt to *interesse* The Public through The Irish media and other platforms. Have The Public been interested? Certainly! We see evidence of this in the comment sections under content on the internet. The Public is very much a part of this discourse. The problem is that The Public consists of many different actors, not necessarily having the same goals.

In the context of this analysis, it is tempting to further subdivide The Public into more manageable groups to see how they individually contribute to the discourse, but that would be a very different thesis and would run into problems immediately. For instance, where do you stop subdividing? A group that would be interesting to look at more closely at would be the various Pagan groups who are drawn to the monument. If we interpret the Nara document liberally, especially reading bullet points 10. – 13. (see section 1.1), one could argue that the views and customs of the Pagans who worship at the monument should have a say in the matter, at least in determining the initial status as a World Heritage Site. But as I said, I will not go any further down this rabbit hole in this thesis.

*Enrolment and Mobilization*: I do not think we can see some evidence of the actors forming some sort of power hierarchy, at least not yet. The actors who think that the monument may be inauthentic have started some semblance of “acting as one”. As I mentioned earlier, they reference each other’s work, building towards a unified statement against the other alliance, but I can see no clear evidence that the actors have successfully *mobilized*. Why is this? I think it has something to do with the simple Venn-diagram I made in section 6.2. We have seen that the actor’s goals towards Newgrange are somewhat disparate and do not always overlap. This could explain why the alliance on this side of the argument have not made any significant headway in their goal to become the new OPP.

For this to happen, one of these actors, or perhaps another institution must coordinate the actors, so that they speak and act as one. I think this could explain the *status quo* of the discourse.

As I argued earlier, The Public has been *interested*, but not quite enrolled.




They have a common answer to the same question we asked before: “Is Newgrange authentic enough as it stands?”. Their answer would be: “No, we should investigate further”. They are in other words, united in their *dissidence*, and a few other overlapping points of contention (ref. sections 5.1 and 5.4). But as we have seen, in Callon’s terms they are not *fully mobilized*. Therefore, making it a weaker alliance, according to theory.



## 6. Results

We need to take the results from the analysis and try to enlighten the research questions we posed at the start of this thesis.

**TABLE 6 - THE NETWORK - AFTER ANALYSIS**

Newgrange is authentic enough	Un-aligned	Moment of translation	Newgrange might be inauthentic
Fully mobilized			Not mobilized
UNESCO Dr. Hensey The OPW  OPP	The Irish Media  The Public	Interestment ←  Interestment ←	Geraldine Stout Michael Gibbons Myles Gibbons Palle Eriksen Gabriel Cooney
	The Visitors Centre Newgrange		

The table above is the visual representation of the results of the analysis. The blue arrows indicate points of access and the green arrows attempts at *interestment*. We see that the OPP is firmly established on the left and a more tenuous alliance on the right with attempts at *interestment* of other actors.

So let us check if we can enlighten the research questions with our findings

### 1. What exactly is the controversy surrounding the authenticity of Newgrange?

We were able to narrow the discourse down to three main points of contention. Namely the revetment wall, the solar alignment phenomenon, and the significance of Newgrange outside Neolithic context. We saw in table 1 that there are overlaps, but I could find no overlap between all three main pints of contention.

This narrowing down was helpful in forming an overview of the discourse and allowed us to begin selecting the most prominent actors. The principle of *generalized symmetry* made it possible to select these actors on basis of the grid of the analysis.

**2. Who are the most prominent actors involved in the discourse on the authenticity of Newgrange?**

We identified the most prominent actors, based on the findings of question 1 and the written sources.

**3. How do the actors position themselves in The Network?**

Here we used Callon's *four moments of translation* to explain the actors positioning in the network. We found that the alliance arguing for the *status quo* is much stronger, having successfully *mobilized* actors to its cause. We also defined this quasi-object consisting of the OPW/UNESCO/Dr. Hensey as the Obligatory Passage-Point in The Network

**4. Can we say anything about the flow of information in the discourse?**

This question was posed to show who controls access to the monument, described in terms of flow of information in ANT. The analysis showed a kind of deadlock, with the OPP controlling access to Newgrange. We also found that there are different kinds of access to the monument and that the alliance opposing the *status quo* would like this to change in order for their agenda to be fulfilled.

## 6.1 Further discussion

The most interesting result from question 1., in my opinion, is that the alliance criticizing the current *status quo* of the monument do not have a unifying goal. If I were to speculate on how this discourse would evolve going forward, I would certainly think that in order to strengthen this alliance, the actors must probably negotiate a common answer to the central question: "Is Newgrange authentic as it stands today?". In doing so, perhaps they can encourage *dissidence* from within the established OPP, or more effectively *mobilize* other actors to their cause. Instead, we have seen that this alliance has *interested* The Public, through various media, but ineffectively. I argued that the Irish public is a much too disparate group of actors for this to be viable strategy. Perhaps one should target specific groups of "non-archaeologist" who are more inclined to become a real ally. I am not too familiar with the Irish society, having never lived there, but I can imagine similar groups like we have in Norway of historically interested people, such as historical reenactors and experimentalists.

The analysis showed that UNESCO stands a kind of silent partner in the discourse, deriving agency on the discourse by virtue of having declared Brú na Bóinne a World Heritage Site and the points of the Nara document on Authenticity. I speculate that perhaps the situation will remain the same unless UNESCO changes its definitions of authenticity. By not interfering, UNESCO is in fact declaring the monument wholly authentic. Which I find a bit troubling, preferring to "teach the controversy" in my own guided tours. UNESCO certainly has a difficult job navigating these waters of authenticity, giving a large degree of freedom to local authorities.

The results considering question 4. indicates that the actors criticizing Newgrange's authenticity, at the moment, have the same access as any normal visitor would have. I know Michael Gibbons hosts tours and guides inside the monument, but as far as I can tell, that is the only "special privilege" he has in terms of access. I argue that what they want is *material access*, meaning that they want authority to possibly change the monument. So, it seems they have their work cut out for them to change the *status quo*. The established Obligatory Passage-Point, in my mind, is too strong, at least if we are to believe Callon's interpretations.

My prediction therefore is that the situation will continue to incite writings in various media, especially surrounding the date 21. December each year at winter solstice.

What I have not talked about so far is the consequences if it indeed turns out to be true that the reconstructions are inauthentic. As discussed earlier, the site is not the most visited tourist attraction in the country but is still central in the nation building processes of The Republic of Ireland, the activity around 21. December in various media being evidence of this. Let us imagine that UNESCO and The Office of Public Works agree that parts of the monument are indeed inauthentic, what would that mean for the future of Brú na Bóinne?

I see little probability of the site losing its World heritage status, because it was mainly the uniqueness artwork that prompted this declaration in the first place. A change in the status of Brú na Bóinne would necessarily entail the redefinition of similar sites, in the

eyes of UNESCO, and I think that is a very messy rabbit hole into which they are hesitant to descend.

The revetment wall is a very striking feature, meaning that if it must be dismantled, the monument will look radically different from many miles away. Still, I think the changing of the quartzite appearance would be the least problem in such a scenario. If the solar alignment phenomenon turns out to be a 50-year-old invention, and not a main feature in Neolithic context, the whole dissemination angle on guided tours and in the exhibitions of the Visitors Centre must also be changed. I do not see this as a problem, as perhaps Dr. Hensey does when arguing against such radical transformations of the monument. Instead, I see it as an opportunity to teach the public that archaeology continually evolving, in step with new technology and better knowledge of the past. In other words, "teach the controversy".

I imagine the guide asking the group questions before entering the passage into the chamber: "What do you guys think is most likely that Newgrange looked like 5200 years ago?". This, mostly because I have faith in the curiosity of said visitors, having a few years of experience as a guide myself. A piece of heritage being retranslated into a different context happens all the time in archaeology, but the consequences are multiplied when dealing with World Heritage Sites.

So, perhaps it is this very point that makes some people hesitant about changing the reconstructions of Newgrange. It would mean changing almost everything about Brú na Bóinne as it is presented today.

I briefly debated including a chapter on similar cases, but it would have made for an entirely different thesis. By similar cases, I mean UNESCO World Heritage Sites where restoration or reconstruction is a contentious topic. I thought I would just mention them briefly here for the readers consideration.

Michael Gibbons himself compared Newgrange to Knossos and Visby. Knossos is perhaps the most famous example, where the Mycenaean palace was reconstructed and later discovered to be almost entirely false (Smarthistory.org 2021).

Visby is a far more complex case involving maintenance issues and an historic town still inhabited and used by ordinary people. I would recommend Eken et. al (2019) for further reading on Visby.

## 6.2 Experience with ANT and Callon's four moments of translation

This is my first analysis using Actor-Network Theory and for a moment I briefly debated including myself as an actor. ANT is acutely aware of the authors influence on the analysis, but I felt I already had enough actors on my hand. Given that I have visited Newgrange and have been on guided tours by Geraldine Stout and Michael Gibbons, I am sure it must have influenced the analysis somehow, but I fail to see in what direction.

I chose Callon's article as a template because it was my first experience with ANT to give me some structure going forward into the analysis. I found it very helpful in organizing my arguments, but felt that it limited me somewhat, especially the principle of *generalized agnosticism*. It is very difficult to not have any *a priori* assumptions about the power structures when reading up on the discourse. So, in this regard, I may have failed slightly. Still, the methodology gave results, and we were able to answer the research questions.

Regarding those, I have re-written the research questions many times during the process, as I am sure many do. But I suspect that I would not have changed them so much using another theory entirely. In a sense, one can say that ANT had a strong agency on me, the author, to arrange the questions in such a way that they could be answered using this method. I think this has to do with the nature of ANT epistemologically. For instance, a psychologist studying the effects of psychedelics on the human mind and poses the question: "Is the experience purely chemical for the subjects' consciousness or are there other processes involved?". A reasonable question to pose, but in ANT, this wording would not make sense. ANT would instead ask: "What does the experience consist of and what influences it?". So, ANT does indeed have "agency" on the researcher who applies it, encouraging him to approach the subject from a slightly different angle. The consequence is that the scope might well change, and I found it difficult to know when I involved "enough" actors in the analysis, or too many.

Actor-Network Theory encourages the writer to apply *general symmetry* to the research, forcing one to look at ones one influence on the research itself. A fear I had was interfering too much or too little, not knowing precisely what "grid" to select for such an analysis. Either way, I would argue that we were able to shine some light on the discourse and why critics are building arguments and forming a semblance of an alliance.

The experience reminds me of what one of my former Professors used to say about choosing theory and methodology for our thesis. He said: "Be careful not to create a marble staircase into a cellar of dirt [not the exact word he used]". Which I took to mean, do not spend too much time on theory, or you will end up with a poor result. I fear I instead have created "a staircase of dirt into a marble cellar". The discourse on the authenticity of Newgrange is truly fascinating, but I might have chosen the wrong approach. In retrospect, I would have gone into more detail of the published material and perhaps arrived at a more precise and technical conclusion.

## 7. Concluding remarks

The Passage Graves at Brú na Bóinne are the largest collection of megalithic art in Europe and consequently was put on the list of World Heritage Sites by UNESCO in 1993. A few decades previously, 1962-75, Newgrange was almost entirely excavated and then reconstructed, both to secure the structure of the mound and passage, but also to restore it to Neolithic standards. During the work on the orthostats close to the entrance were raised and the *roof box* cleaned out. The team, led by Professor O'Kelly, subsequently discovered that every year on winter solstice the sun would shine directly into the chamber. This was interpreted as an important function of the monument in the Neolithic and formed a basis for how visitors greet Newgrange today. These reconstructions have been hotly debated, especially since the World Heritage declaration, mostly focusing on criticizing the solar alignment phenomenon, the quartzite revetment wall, and generally the exclusion of other time periods when the mound may have had other uses than what is disseminated by the exhibition at The Visitors Center. Subsequently, you also have the defenders of Professor O'Kelly's methods at the time, and there are those who argue that the solar alignment phenomenon is not an anachronism.

The thesis set out to examine this discourse and chose Actor-Network Theory as a basis for an analysis of the situation. We were able to show The Network and describe the actor's interactions by using Callon's *four moments of translation*, from "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Briec Bay (1986)". We analyzed the discourse in a light of alliances and *dissidence* and found that there was an established Obligatory Passage-Point consisting of The Office of Public Works Ireland, UNESCO, and Dr. Hensey. The other side of the discourse, in terms of *interestment*, seeks to establish themselves as the new OPP, but as we have seen, this alliance is weaker relative to the established OPP.

This means that the archaeologists who are criticizing the reconstructions of Newgrange do not have access to the monument, in terms of changing it, and they are trying to secure more allies. Until this happens, the thesis speculates that some form of *dissidence* from within the OPW might be necessary, or some form of popular movement or governmental intervention. We also found that it is highly unlikely that UNESCO will interfere directly in the matters of The Republic of Ireland, as we saw in the Nara document on Authenticity.

Looking ahead, we speculate that a reversal of the reconstructions would also necessarily entail a reimagining of the entire Brú na Bóinne World Heritage Site and how it is presented to the public.

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