

---

# INVESTIGATING TRANSFORMATIONS IN ART HISTORY

Matthew Gream<sup>1</sup>, November 26, 1999<sup>2</sup>

---

Introduction

Investigation: *Transformation, Process*

Introduction

Proposition

Application

Implementation

Expectation<sup>3</sup>

Information: *Transformation, Romano-Celtic*

---

## INTRODUCTION

The original intention of this paper was to examine Romano-Celtic works of art to investigate the manifestation of Celtic style<sup>4</sup>. Unfortunately, there were problems with access to material at the Fitzwilliam Museum and British Museum, so it was not possible to take this approach<sup>5</sup>.

The current intention is to refine and describe an investigation into general aspects of stylistic development, and to provide information about the integration of Roman and Celtic style. These assist to develop an understanding of theoretical and practical art historical activities<sup>6,7</sup>.

---

<sup>1</sup> matthew.gream@pobox.com.

<sup>2</sup> Redistribution or use without permission is denied.

<sup>3</sup> The mathematical formula is:  $\_Process$   
[Implementation (Proposition, Application)] =  
 $\_Real$  (Expectation)

<sup>4</sup> The Celtic and Roman styles are taken as independent, merging into the Romano-Celtic style due to Roman influences from 1 AD onwards.

<sup>5</sup> I did not collect enough information on the first pass visit to the British Museum, and then found that there were no objects at the Fitzwilliam museum that satisfied my criteria.

<sup>6</sup> In any discipline, it is important to practice the discipline, but refine and develop the processes

## INVESTIGATION

### INTRODUCTION

This investigation attempts to develop a theoretical model for a particular process frequently observed in art history<sup>8</sup>. The results of this activity can then be added to a toolkit of skills and a body of theoretical knowledge that can be used to develop and refine art historical processes<sup>9</sup>.

The approach is scientific and rests upon reasoned mathematical logic<sup>10</sup>. Firstly, a proposition is put forward based upon initial evidence<sup>11</sup>. Secondly, the application of the proposition is discussed<sup>12</sup>. Thirdly, an implementation outline based upon the proposition and application is constructed<sup>13</sup>. Fourthly, the expectations are described<sup>14</sup>.

---

and models of the discipline, and resolve – at a philosophical level – the appropriateness of the processes and models to the aims of the discipline.

<sup>7</sup> It is always an interesting activity to take knowledge from intellectual sphere and apply it to another. I am trained primarily as a scientist and engineer.

<sup>8</sup> The theoretical model needs to concern itself with boundary issues, and a suite of other scientific tools to reason about scope and validity.

<sup>9</sup> Disciplines, by definition, have procedures, models and various “tools” that are used as part of activities.

<sup>10</sup> Based on my training as an engineer in scientific techniques, however in reality, this assumption would itself need to be questioned, investigated and developed.

<sup>11</sup> The proposition arises because similarities and commonalities have been observed in several realistic cases.

<sup>12</sup> The application is important, it helps develop an understanding of where the results may apply, as a means of ensuring that the investigation does have practical relevance.

<sup>13</sup> The implementation is described as a first pass; and under the general cyclic and iterative nature of the investigation, it could change. The idea here is that an the initial point in space, as proposed, is probably approximately correct and subject to refinement, and should converge to a solution provided that the investigate process is not divergent!

<sup>14</sup> Although not knowing the exact results initially, there is some approximate idea of the results based upon the proposition, application and implementation.

It is possible that the investigation may fail, as it may not produce worthwhile data<sup>15</sup>. However, investigative failure is information success<sup>16</sup>.

### PROPOSITION<sup>17</sup>

The observation is made that there are a number of cases where an existing culture or style of art exists for in relative stability for a long period of time<sup>18</sup>. Into this, a new culture or style of art is imposed, resulting in a period of integration and then, eventually, a new period of relative stability<sup>19</sup>.

The evidence for these observations is drawn from the following scenarios<sup>20</sup>,

- a) The pagan Celts, subject to the influence of the Christian Romans; resulting in the Romano-Celtic style which is Christian but with heavy Celtic influences. This occurred between the first and eighth centuries; one of the first waves of Christian expansion, limited to the European sphere.
- b) The pagan Maori, subject to the influence of the Christian Europeans; resulting in a continuing Maori style with

---

<sup>15</sup> Statistical measures should be used to increase confidence in the data. For instance, the synthesis of conceptualisations from bodies of knowledge could be subjected to statistical measures of fit.

<sup>16</sup> A greater understanding of the investigative process could occur.

<sup>17</sup> The proposition consists of an observation and its evidence. The boundaries of these are discussed.

<sup>18</sup> We can talk specifically about the physical manifestation of art through material objects, but we are more generally interested in the surrounding climate (the culture, its belief system, and so on).

<sup>19</sup> There are different ways in which the two threads can come together, and these should be categorised and treated independently. In this investigation, we are concerned with a single outside influence onto a single inner thread.

<sup>20</sup> Both (a) and (b) are generally the result of christian expansion and influence into an existing primitive pagan culture. Note, somehow, the similarities between this and the current western expansion and influence of the american culture into the world as we are now leaving "the renaissance" and heading towards "globalisation" (there is a new renaissance of intellectual activity).

Christian influences. This occurred around the nineteenth century. It marks a later wave of Christian expansion, into a broader global sphere.

- c) In a different domain, it is even possible to look at traditional Engineering design, subject to the influence of scientific Engineering design; resulting in a style of iterative Engineering. This has been occurring in the later half of this century, notably in software<sup>21</sup>.

There are likely to be other, more useful and significant, examples similar to scenarios (a) and (b). The use of scenario (c) would help to broaden the investigation out of its current domain towards greater generality<sup>22</sup>. The selection of scenarios needs to keep in mind the particular type of transformative process that we are investigating<sup>23</sup>.

The investigation of the proposition must also develop boundaries<sup>24</sup>. The investigation of multiple scenarios should provide

---

<sup>21</sup> This is in a different domain, but there are conceptual similarities. Traditional engineering generally swayed towards designing with an existing body of knowledge in a linear manner, whereas scientific engineering involves discovering the body of knowledge in an iterative process. The imposition on the later of the former has similarities to art and culture (since, they are all micro cultures at some level).

<sup>22</sup> In any field of study, the limited perspective is good, as the results may tend to be specialised towards that domain, but also bad, as the results are then not generalisable, and the usage of the results has an inherent domain preserving parochialism built in. In general, dynamical systems need some degree of outside influence to protect against over specialisation (the meocats of Africa do this well with a character whose social role is to fertilise females in other families, and therefore randomly perturb the gene pool).

<sup>23</sup> Appropriate data for appropriate situations! But need the previous warning!

<sup>24</sup> Unless there is some kind of geographic system for the intellectual space (which we don't have yet, an interesting parallel to the physical world several centuries ago), the continuing development of the conceptual intellectual space needs to anchor propositions in a surrounding conceptual landscape. It would be interesting to write a paper on the idea of a connected conceptual intellectual landscape; and with the ubiquity of information through the internet and other systems, this becomes increasingly realistic.

sufficient information to develop a locus of knowledge that is centered on the proposition. It is for this reason, that consideration of additional domains is important to remove single domain parochialism if the intention is to work the model to universal frameworks and belief systems<sup>25</sup>.

### **APPLICATION<sup>26</sup>**

The investigative process itself can be refined and improved to develop a high quality intellectual tool. The process is concerned with isolating and developing a conceptual framework, and linking it to the surrounding conceptual landscape.

Some applications are: 1) the refinement of language definitions from a wide body of language use; 2) the collision of complex moving objects and the resultant forces; 3) the convergence of two organisations (e.g. design practice) of creative humans; and 4) the convergence of creative professions, each of which has its own set of tools and frameworks.

The investigative results provide an understanding of the transformation of art styles under the influence of a wider cultural integration; and in more general terms, the transformation of creative manifestation due to the convergence of cosmological belief systems.

Some applications are: 1) other instances of primitive cultures with christian imposition, 2) other instances of any creative art producing culture subject to influences of other culture; and 3)

The process and results push forward understanding in the breadth and depth of understanding in the art history discipline, and are generalisable beyond art history to general cognitive processes.

---

<sup>25</sup> For instance, it is possible to study the effects of alcohol in a particular city, but the results only have applicability in that city, and to be generalisable, the study needs to be made in multiple cities. Further to that, even this study is still bound into the "city culture", and would need further generalisation to develop the theories towards human and cultural universality.

<sup>26</sup> The application considers results from the investigative technique, and the investigation itself; as they can be used for broader use.

### **IMPLEMENTATION<sup>27</sup>**

The initial model is based upon the proposition and can be represented using the notation of mathematical vectors.

The vectors represent art/cultural domains. The vectors can be populated with scenarios, two of which have already been proposed. Many more need to be discovered to provide a statistically significant sample space.

<diagram>

The vectors are aggregate entities, as they are composed of flows. These flows are significant attributes of the domain that are discovered in the sample space. As the investigation has been limited to the physical manifestation of art, the attributes may take the following form.

<diagram>

The model is developed and refined using information rich scenarios. The scenarios are fitted into the existing model, and the model is adjusted according to an understanding of how the information does and does not fit. With more scenarios, the information that does and does not fit can be categorised. Further concepts can be developed and the significant attributes become apparent. Statistical measures can be used.

<process>

### **EXPECTATION<sup>28</sup>**

The results are expected to take the following form:

- a) high level model of the behaviour, which consists of multiple domains (creativity and art production in a cultural context) transforming; in the manner of mathematical vectors.

---

<sup>27</sup> The implementation must propose an initial static point from which to start, then the processes by which that point is moved, expanded and otherwise perturbed towards becoming relative concrete and well defined.

<sup>28</sup> Having described the static and dynamic processes, and having an understanding of the general structure of the theoretical mechanics of these processes, it is possible to approximately describe the architecture and nature of the results.

- b) decomposition of the high level model into significant characteristics, which interact to effect the changes that occur in the transformation; with the characteristics quantified by statistical measures.
- c) examples of potential applications that may be expected to be used with the model, and testing whether or not the model successfully fits as a description; in a more ambitious case, this may be applied outside of the art history domain.
- d) some discussion on the relationships of this approach and its findings to mathematics, physical and dynamical systems; this is a generalisation of understanding.

Note that even the description of this experiment should be reworked and refined to achieve harmony<sup>29</sup>.

## INFORMATION

In 'Celtic Art: Reading the Messages' by Miranda Green<sup>30</sup>, there is a discussion about the transformation of Celtic art due to Roman influences.

The role of Celtic art included votive offerings placed in rivers, lakes, marshes, tombs and symbolic locations on the landscape. Sometimes, as a cult offering, objects were carefully hidden in the ground. The designs had identifiable symbols, such as human faces, animals, the tree of life, lotus flowers, and triskeles. Human figures were scarce and unrealistic in form, with an influence on schematism and abstraction. Information for this period is drawn from findings such as cult wagons, stone figures at funeral mounds, and the Gundestrup cauldron (as ceremonially placed in a marsh).

When the Romans conquered Europe over the 1st century BC & 1st century AD, they introduced methods of representing their gods, that were for the most part, alien to

the Celts. From this time, it became common to depict divine beings in human form.

A great deal of Celtic religious imagery appears for the first time in the Roman era, influenced by Roman forms of expression. Examples include the Celtic horse goddess Epona, and the Celtic sun god. The sun god borrows many attributes from the Roman sky god Jupiter, and is displayed by a solar symbol of a spoked wheel which is non-classical (and appears on its own as an amulet in Celtic Europe before the Roman period). They epitomise what happened with many gods and goddess: they appear as roman images, wearing roman clothes and hairstyles, but with Celtic emblems (e.g. hammers & cauldrons).

The Celtic vernacular myths were compiled in written form from 8th century AD to 14th century AD. It is possible to link themes in these myths with pagan art, and triplism runs as a constant thread through the mythic literature and in Romano-Celtic works<sup>31</sup>.

The Romans came to Britain by the 3rd century AD, but were wiped out in the 5th and 6th century AD, though some pockets survived (mostly in the far north and west). By the end of the 7th century AD, paganism had largely died.

The Christian Saints filled the gap left by the myriad pagan spirits, and acted as mediators between god and humankind. Water was perceived as sacred by pagan Celts and retained its sanctity under Christianity. Monks travelled and absorbed foreign artistic traditions, which were blended into Celtic designs and motifs. As a result, sculptured crosses, manuscripts, and metal work reflected an amalgam of Celtic, Germanic and Mediterranean ideas.

The presence of Celtic elements (in the motifs used, and the approach) was retained and included issues such as the oscillation between life and geometry, between realism and fantasy, representation and abstraction

<sup>29</sup> It is interesting to consider the iterative aspect of the creative process here, in some cases, at least with practice, harmony and consistency is very quickly achieved, at other times, it requires iteration and refinement.

<sup>30</sup> 1996, Calmann & King, ISBN 0297 83365 0.

<sup>31</sup> The meaning is unknown, but it is important to note the similarity to the Christian Trinity. It is interesting that in New Zealand, with the Maori culture, a somewhat similar process occurred, with traditional symbols gradually acquiring a triplism.

and illusion and ambiguity. Tension, asymmetry, meandering spirals, whirling triskeles were still present in Christian art. The scholar Francoise Henry, speaks of 'half disguised figurations of Celtic gods' lurking amid the Christian symbolism: an illustration that adoption of new forms was not absolute.

There are three main areas groups of artifacts to look at: Christian metalwork, Christian sculpture and Illuminated manuscripts.

Christian metalwork for church purposes placed new demands on Celtic craftworkers, and finds of hanging bowls are adorned with Celtic designs such as running spirals and bird-headed triskeles. One such vessel at Sutton Hoo contains Christian symbol of the fish. Chalices, made for sacramental use, have been found inscribed with names of Apostles combined with Celtic motifs. In some cases, depictions of Christ and his companions have exaggerated human heads, a particularly Celtic tradition. These heads also have almond-shaped eyes and schematic features, similar to pagan gods.

Christian sculpture was mostly manifest in crosses. In some of the earlier monasteries, the crosses have pagan art symbols (of the swastika) and motifs. The crosses of the 7th-9th century AD were frequently a blend of Germanic and Celtic forms, with interlaced animals, spirals, triskeles and human images in schematised and exaggerated form. In Wales and Scotland, crosses are found as far as the 10th century with Celtic and Germanic designs.

Illuminated manuscripts contained ornaments that came from a variety of influences in the Celtic, Germanic and Mediterranean worlds. Celtic ideas can be discerned in such motifs as spirals, curves, and triskeles. It is obvious that the books were specifically Christian objects, but much of the artists' inspiration was drawn from the dream-images of myth and the pre-Christian supernatural world. The book of Durrow is a prime example, however in the book of Kells it is possible to see miniaturist detail of animals, palmettes, triskeles and scrolls. The Chi-Rho page has been described as an illustration of "the marriage of pagan superstition and Christian belief".