INTRATEXTUALITY

Exploring the Unconscious of the Text

DATA MINING TO UNDERSTAND THE SOURCES IN THE UNCONSCIOUS

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Introduction

Intratextuality is opposed to Intertextuality. Intertextuality is the playing off of each other of various texts to produce a rich interpretive environment for our hermeneutic escapades. Intra-textuality on the other hand is the treating the given text or set of texts as a fractal landscape which we explore in detail with a full realization of their overlapping and interpenetrating internal contexts and signs that express concepts and archetypal motifs. What haunts these contextual niches and the signs that inhabit them is the unconscious of the text itself, not our unconscious, but the unconscious of the otherness of the text that comes from the dimensions of the artifact that are not fully controlled consciously by the author nor fully interpreted by the critic. This unconscious of the text may be referred to as its

intratextuality in which the text itself becomes a general economy of contexts, situations, milieus, and in general metasystems of signification and meaning beyond the intent of the author and beyond the interpretative capabilities of the critic who deal with the text in conventional ways, by writing and reading. Intratextuality demands non-conventional ways of dealing with a text such as data mining the texts for concepts that are found through software programs that scan the text and elaborate the nuances of contextuality and situatedness in the text itself whose scale is perhaps different from what we can appreciate as readers and writers in the conventional humanistic means of approaching texts. We do not normally treat texts as pure information or as materialities to be processed by software algorithms. But this kind of inhuman reading of texts is just beginning to become important for vast texts like the web pages on the Internet and other document repositories and data repositories. Thus a field of data, information and knowledge mining of repositories of artifacts has become important for other disciplines beyond

literary criticism. This essay explores their possible importance for literary criticism and depth psychological analysis of literary works. We posit that there is a possibility of exploring the intratextual unconscious of works that both readers and writers would be unaware of if it were not for features brought to their attention by computer simulations that scan and represent texts in alternative visualizations than just the texts themselves. For instance, we can map the concepts in a text and present a map of those artificial that data, information, concepts knowledge mining software like Leximancer produces. These maps expand interpretative tools at our disposal and in fact change the landscape of critical theory and literary interpretation introducing by different ways of dealing with texts rather than merely reading and writing them. Rather we can view them using our pattern recognition capacities of visual perception when the unconscious connections between concepts are presented to us as maps¹. This intratextuality, the treating of the multiple interpenetrating concepts as niches for significations within the text which traces their relevancy within the text and their propensities to transform into a series of key concepts which unfold into the entire text in all its richness as an environment for signification and meaning is the subject of this essay.

A New View Of The Unconscious Of Texts

We tend to think of the unconscious in terms of consciousness rather than being in the practico-inert² artifacts produced by consciousness. So the view of the

1 See Ana Pejcinova <u>Crystals of the Unconscious</u> http://www.volny.cz/apejcinova/

unconscious advanced here will be somewhat different than that normally put forward. Here we will be concerned with the artifacts produced by consciousness and be concerned with exploring the unconscious within those texts. Of course, this has implications for the understanding the unconscious of the authors of the works that we are considering as texts, but our primary focus here will be in understanding a new method of accessing the unconscious of texts themselves. This new method is based on data mining, which is a new discipline that treats large data sets and tries to make sense of them. Normally we don't think of applying data mining to literature. Rather we think of data mining large sets of amorphous economic data or news data, which we might find on the Internet. But in this case we will explore the use of a specific data-mining tool called Leximancer³ to explore the unconscious of texts. This essay will be a theoretical document that explains why this might be considered feasible and the context in which it might be meaningful to perform this kind of analysis and what the results of such a data mining exercise might be with regard to sample texts. We set this exercise in the context of the formalist and structuralist movements in literary analysis and various post-structuralist attempts to understand literature and it's unconscious.

Lets begin setting the stage by identifying the difference between formalist and structuralist approaches to texts. Formalism seeks to give a context free analysis of the form of the literary text concentrating on the formal elements of the text and their arrangement in the work. This identifies the work as a literary form within a genre. Each of the words in that literary piece is considered the content of the form. The form has a certain organization, style, arrangement of parts, etc. that can all be analyzed and compared to works of the same or a different genre. Now let us compare this to the structural

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² Sartre in <u>Critique of Dialectical Reason</u> uses this term to indicate the results of human labor which becomes dormant when human intentionality moves elsewhere until it returns to pick up the artifact produced by human labor again.

³ http://Leximancer.com

approach, which has a different way of looking at texts. In the structural approach the text is reduced to its content, which is considered in terms of binary oppositions. These binary oppositions are considered the fodder for transformations of the content within the text or between texts. Thus, the formalist starts from the top down when analyzing the work and identifies the formal elements of the text until it reaches the limits that are the individual words themselves. Structuralism reverses this and begins with the words, which it finds having binary oppositions between them and from that it proceeds to identify transformations that produce various ensembles within the text that can be identified and explained. For formalism the structures within the text that make up its unique organization are pregiven by the author who formed the text. They are merely considered as context independent by the critic. For structuralism the ensembles within the text are produced by a series of transformations from fundamental binary oppositions between conceptual words at the lowest level of content that build up toward understanding the whole of the text as a form. One assumes the author as the agency for imposing order within the form of the text. The other does not necessarily assume the author and in fact might find structures in the text that the author did not intend. Because of this structuralism breaks from the work completely and considers the text as pure text, i.e. a set of contents with transformations that may or may not correspond to the intentions of the author. In structuralism the author becomes irrelevant whereas in Formalism the context of the work is all that has become irrelevant.

Derrida at the point where Structuralism was being introduced into the USA did a critique of structuralism itself and pointed out that structuralism was merely another more intense version of Formalism; it was a "formalism of formalism" or a formalism of the content itself. He pointed out that it still assumed a center of the text even if that was

not related to the author, which was an organization of the transformations seen as operating in the text. This center was still like an essence similar to the essence that was seen as organizing the attributes of the form in traditional meta-physics. Derrida wanted to introduce the concept from Grammatology of the trace. The trace is a set of possibilities within the text, which become apparent at the point where there is some undecidabilty in the text. It is by these traces in the text that we discern the metaphysical unconscious in the text beyond the author and the organization of transformations within the text. We then deconstruct the text pointing out its fundamental disorganization beyond all attempts of the author or the critic to organize it. Derrida's work has been a concerted attempt to expose this unconscious within the text itself beyond the author and beyond the critic. We call this deconstructionism or post-structuralism. Derrida shows that all sorts of texts are open to this deeper level of disorganization despite the attempts of the author and the critic to organize the text as work or as subject of analysis, even structural analysis.

Now if we want to go beyond deconstruction, back toward reconstruction the question is how do we do that? One-way is to go to the next meta-level beyond the meta-level of Being on which deconstruction is posed. But this assumes we understand the meta-levels of Being. The concept of Being is inherently paradoxical, even absurd when we look at its full panoply of expression in our tradition. However, this absurdity, even insanity, can be comprehended by reason if we apply Russell's theory of logical types, as summarized by Copi, to the paradox. We would do that by identifying a series of logical types that moves to higher and higher logical levels of analysis starting at entities, beings, or things. Heidegger identifies the first logical type as the level of Pure Being, i.e. the abstraction where we identify Being as the most empty yet the most encompassing of all ideas. The difference between things,

entities and beings and this "Being" with a is called by Hiedegger "B" capital "Ontological Difference." In Being and Time Heidegger posits that "Being" is different from "beings" and fundamental ontology is the discipline that explores the nature of that difference. From making that difference Heidegger, basing his work on that of his teacher Husserl, goes on to identify the difference within being between Abstract and Static Pure Being, i.e. the present-at-hand, and another type of Process Being which was mixed with Time, ready-to-hand. Merleau-Ponty repeated this exercise of discovering a difference within Being in his book Phenomenology of Perception. In that identified the psychological he concomitants of the mode of being-in-thethat Heidegger had identified. Merleau-Ponty identified present-at-hand modality with pointing and ready-to-hand modality with grasping. This difference was rooted in Husserl's phenomenological analysis of consciousness that identified the difference between essence perception and abstract conceptual glossing called ideation. Once the distinction was made then the gold rush was on to identify other kinds of Being beyond those mentioned by Heidegger and Merleau-Ponty. Both Heidegger Merleau-Ponty independently went on to identify the next meta-level of Being called Hyper Being. Merleau-Ponty called it the hyper-dialectic between Heidegger's Process Being and Sartre's Nothingness. Heidegger called it Being (crossed out). This kind of Being was focused in on by Derrida and called DifferAnce and it became the key nonconcept of Deconstruction. However. Merleau-Ponty in The Visible and the Invisible went on to identify a fourth metaof Being called Wild Being. Unfortunately he did not get to finish the book in which he was developing this idea due to his untimely death. But students of his like Deleuze went on to develop as philosophy at the level of Wild Being, which appears in Anti-Oedipus and A Thousand Plateaus. Thus, if we want to go beyond

deconstruction, then it is to this higher metalevel of Being that we must appeal. Now there are several philosophies articulated at this meta-level of Being including John S. Hans The Play of the World and Cornelius Castoradis The World In Fragments. The new challenge is to produce a philosophy at a level beyond Wild Being at a level called Ultra-Being, i.e. the fifth meta-level of Being. No one has been able to do this up to this point in our tradition. It stands as an open challenge to produce a philosophy at the level of Ultra Being. The closest extant philosophy is Sankara's Avida Vedanta in India. This is a philosophy that identifies Being with Nagarjuna's emptiness and thus posits maya as being the nature of Being which is a combination with the void or emptiness of existence. The nature of Ultra Being is posited as Maya in this traditional post-Mahayana Buddhist Hindu philosophy. It basically incorporates the insights of Mahayana Buddhism into the nature of Emptiness (Sunyata) back into Hinduism. It goes beyond the fourth meta-level of Being, out into the void and then brings the insights into the nature of the void back in to augment our understanding of Being. However, no philosophy has yet been produced that is known by the author that constructs a philosophy of Being at the fifth meta-level of Being. It is the opinion of the author that this is impossible because there are only four meta-levels of Being and that beyond that is only emptiness and void of existence. However this point is open to refutation, so that this is the first refutable ontology to be proposed. Anyone who can build such a philosophy of Being will have not just proven that it can be done but also expanded our world, because the four meta-levels of Being are the fundamental structures on which our worldview rests. To open up another metalevel is to actually expand the encompassing character of our world. This author believes that the fourth meta-level is an intrinsic limit built into the nature of the world and ourselves that appears as a practical impossibility. Logically there should be

infinite kinds of Being at infinite meta-levels of Being. But practically there are only four meta-levels and the others are unrealizable by thought. It was Gregory Bateson in Steps to the Ecology of the Mind that first realized this limit to logos learning and to the physus of motion. Logos and Physus are the fundamental metaphysical distinction within our worldview. So if Logos and Physus are limited in this way then Being in general is probably also limited in the same way.

Here we will consider the deeper unconscious of the text beyond Deconstruction applying this knowledge of the meta-levels of Being to define what that deeper unconscious beyond deconstruction might be like. But we will do so by employing a specific technology of textual mining by using a computer software program that attempts to isolate concepts based on the contexts within a textual set. However not just any text mining software, but specifically Leximancer, which analyzes texts in a way that can be seen to harmonize with the analysis of the meta-levels of Being. Here we will consider one text that appears as an example on the Leximancer website. That text is the complete works of Shakespeare. We will attempt to see how the maps of this text that Leximancer produces can be aligned with our theory of the unconscious of texts based on the meta-levels of being. In doing so we will go beyond deconstruction to a deeper understanding of the unconscious of texts that presents them as a synthesis of the unconscious beyond the disorganization and disorder found at the level of deconstruction. Analysis is based always on prior synthesis. Leximancer allows us to see the prior synthesis at the level of Wild Being and then the unfolding of the text at the various meta-levels of being so that we get as complete a picture as possible of the unconscious of the text itself. We can use that understanding to investigate the work of the author, which appears in his historical, social and psychological context. The text is considered in a context free environment, which is where formalism and

structuralism operate considering the work out of context, even out of the context of the author and the critic. This consideration is purified by the conversion of it into the analysis of the text by a computer software program that has been constructed for data mining. To this program the text is just another dataset. It finds concepts in it and tells us the attributes of these concepts and their relation to each other. It constructs a map of these relations and shows us that map. It has no ideas of author, of critic, of context, of concepts as used in our culture or language. All it knows is about the diacritical relations between words in the context of sentences and paragraphs in the text itself. But it can convert these into a fractal map of the articulation of the text in terms of itself. That map can be studied by us to gain insights into the unconscious of the text, which then we can use to make hypotheses about the workings of the unconscious of the author in his setting as creator of the work. But first we need to understand the way that the data mining software works and how it's results may be interpreted in relation to the unconscious of the text based on our understanding of fundamental ontology.

How can we speak of the unconscious of the text rather than the person when we all know that texts are not conscious? The point is that the text is a practico-inert artifact of the aware and conscious being or existent human. As such it is uniquely structured in its minute particulars producing a rich environment of contexts and situations of signification. In this encoding process a trace left. of the consciousness unconsciousness of the creator in the artifact. It is not there at the level of the determinate words and signs that are left on parchment, paper or the computer terminal screen. It is probably not there even in terms probabilities and the dynamics of consciousness because except for errors in transmission the text is considered static. But at the level of traces that consciousness and unconsciousness together are there because

they arrange the text in a particular way playing close attention to the smallest detail and arranging those signs and words in a fractal structure that is very complexly interwoven up though intermediate structures to the macro structure of the texts such as chapters or even books. In this structuring and patterning of the text there is a trace of consciousness and unconsciusness together left that haunts the text no matter how hard we try to excise it by abandoning the author, even by abandoning the critic. When we look at that fractal contextualization of signs we discover that it is so complex that we have difficulty understanding it except at a midlevel at which we read an analyze the text. Many times the macro-structures and microstructures of the textual production escape our notice. But what if we had a software program that would bring out those macro and micro contextual patterns in ways we could perceive that patterning of say how the concepts interweave throughout the text. That would change our way of dealing with the text. We would become more than just readers or critics. We would appreciate the fine and gross patterning of the interwoven concepts that trace their ways though the text and thus we would explore in more detail how the unconscious of the author and the social group that the author belongs to in a particular historical milieu has imprinted itself on the text to become the unconscious of the text itself. It is unconscious because it is beyond our reach with conventional tools of writing and reading the text. It is also unconscious because it is the traces of the relevancy of the various concepts throughout the text. Traces are not in the forms or signs but they are the haunting of signs by other signs in the text by their close approximation in one place and their distant calling to each other across the text in other places. Although texts are not conscious or aware, they have the traces of our consciousness, and we can see that when the implicate order of contextualizations are unfolded as a pattern for us to recognize.

Leximancer Data Mining Software

Andrew Smith who is an expert in data mining developed Leximancer. His idea was to develop a program that isolated the concepts in texts. He considered concepts from an object-oriented viewpoint as objects with attributes. The attributes of the concepts are the words most closely associated with the concept in the text. This is inferred by looking at the contexts of the words in terms of sentences and paragraphs. Words closely related to one concept and distantly related to other concepts are identified. Then the between the concepts relations determined in terms of a type of conceptual distance. This distance is then turned into a map that depicts relative distance between the concepts as a whole in relation to each other in a universe of discourse created by the text or texts under analysis. This shows up as a map that can be explored on the Internet in a browser and associated web pages that show the various strengths of relation of concepts to each other or attributes to the concepts. The web pages actually depict a yellow highlighting of the text to show where the attributes are anchored into the text itself. In this paper we will not give a detailed exposition of the algorithm by which the texts are analyzed. Rather we will assume that this particular algorithm works and attempt to understand its output in a wider context that makes sense terms of literary criticism philosophical discourse. We are attempting to explore how tools like Leximancer can be of use to us in understanding the unconscious of texts. Of course, whether this is the best algorithm and how the algorithm should work is important and should be explored separately. Right now our focus is on whether given an algorithm that produces an analysis of a text such as this, whether we can make sense of it in a way that contributes toward our knowledge of the unconscious of the text. Over time the algorithm in Leximancer will be critiqued and improved,

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here we will only look at it as an example of a kind of data mining of concepts in texts and attempt to understand how that might give us insight into the unconscious beyond that identified post-structuralism deconstruction. We are not assuming that the Leximancer system is correctly coded nor that it's output is correct at this time. Rather we are looking at it as an example of a type of software for textual data mining and considering its implications for literary criticism and philosophical understanding of texts. The best thing is to go to the Leximancer website and look at the examples and read the manual to understand the way the system works. Also one should read the technical reports produced by the author of this software.

This is how Andrew Smith describes Leximancer:

Concepts are built around seed words by iteratively discovering new seed words, which appear frequently with, and infrequently away from, the seeds from the previous iteration. This propensity for words to travel together and not apart will be called relevancy. A relevancy window of three sentences is normally used. Experience shows that the range of a concept's influence normally extends over around three sentences.

Grounded seed terms are discovered by finding common words which have many strongly relevant other words. Practically, this is performed by executing the first iteration of the algorithm described in the previous paragraph for each of the more frequent words, and ranking on a relevancy-weighted moment for each of these frequent words. Each of these automatically selected seed words then forms the basis for building a concept. The choice of the number of these automatic seeds from the ranked list is up to the analyst.

A learned concept consists of a family of words relevant to the initial seed word, or words. Each word in the family is weighted by its relevancy to the family, but this relevancy is converted to a number of standard deviations from the concept mean. This normalization allows cross comparison of different concept weightings.

Coding of the text. This is also referred to as tagging, or high-resolution classification. Each segment of text is classified with multiple concepts by taking each word within the segment and finding all the concepts predicted by that word. The predictions for the various concepts from all the words in the seament are added, and those concepts with a total greater that some threshold are assigned classifications to the segment. These sets of classification tags are stored as a list of concept n-tuples. Choice of the length of a text segment is an important decision for the analyst. It can be as small as one sentence or as long as a whole e-mail message. The choice of segment length has an important influence on measured interconcept relationships.

Indexing of concepts and relationships. At the simplest level, the number of tuples containing a concept is called the total weight of the concept. Next, for each concept, we record the number its tuples which contain each other concept. This is the absolute co-occurrence weight between one concept and another. The relative cooccurrence weight is found by dividing the absolute co-occurrence weight with each other concept by the total weight of the first concept. This gives a measure of the relationship of the first concept to each other concept based on the relative frequency of co-occurrence. Please note that this measure of relationship is based on relative frequency, and is deliberately different from the relevancy measure described above.

The next measure of a concept, called centrality, is found by adding the absolute co-occurrences of all the other concepts with the primary concept. This measure is largest for frequent concepts with many other frequently co-occurring concepts. Frequent concepts which co-occur with few other concepts will have low centrality. Infrequent concepts will also tend to have lower centrality.

The relative co-occurrence weight of each concept to every other concept is used as the basis of the concept cluster map. The colored rays on the final map show the strength of actual relative co-occurrences. The concept cluster map is evolved using a self-ordering iterative algorithm similar to multi-body physics simulations. The final map is a dynamic equilibrium pattern which forms a kind of asymmetric multidimensional scaling. The order appearance of concepts when zooming the map is based on the centrality measure, so that the most central concepts appear first.

One key point that must be made is that because the Leximancer software has some probabilistic elements the maps that are created are different each time it is run in some small or larger ways. Thus, another run of the software may result in a different departure point for analysis and end up giving in some ways very different results which are all within the ball park of each other. Thus, this study begins by taking a single instance of the map and explores what it can tell us about the Shakespearian textual unconscious. The particular mapping that was used is the one on the Leximancer web site at the current time, which was produced by an earlier version of the Leximancer Results program. with the current Leximancer version may be different. The analysis here must be considered tentative and of an exploratory nature rather than as a final result. We are looking at a high multidimensional object in a very low dimensional scaling of very complex data. This is why we say at each point that this be a strange attractor multidimensional infolded catastrophe. As Andrew Smith says it is definitely an attractor of some sort but it is unclear in any case whether or not it is a strange attractor. It may merely be that it is an attractor because of the high dimensional in folding of the multidimensional object and their effects in a low dimensional representation such as we have here.

However the major point to be made in this paper remains unchanged which is that there is a homomorphism between the kinds of Being and the Leximancer Map of the unconscious of the text. The fact that the map has probabilistic movement is handled by the appeal to Process Being. The fact that there is indeterminacy with respect to symmetry operations is the undecidablity of Hyper Being. The fact that there are small changes in the actual unfolding of the concepts from each other in sequence of the highest absolute weighting to the lowest over many runs is a difference in the propensities at the level of Wild Being. So the untamed nature of the map is something that is to be expected. But as a first approximation we have looked at a single map to see what we can make of it considering it as determinate and present-at-hand, as an example of the sorts of maps that Leximancer and like programs might produce and to explore its usefulness as a tool for getting at the unconscious. However, we do not expect the unconscious to merely appear as something static and easily pinned down by any one representation. Rather the unconscious has a trickster element, a mercurial disposition that will foil our attempts to grasp it as something present-at-hand. Rather we need to approach it with a sophistication that uses all the types of being-in-the-world that we have at our disposal. However, it is not possible to start out at the most sophisticated level of approach, which brings all these levels of being-in-the-world to bear at the beginning. Rather this is an ongoing research project which is just at its beginning. We are just beginning to explore what data mining can tell us about the unconscious of texts. The first step is to treat a single map as presentat-hand and see what can be made of it. The next step is to realize that this single present at hand map is just one of a family of maps with probabilistic differences between them which need to be take into account by applying Monte Carlo methods to get a deeper view of the unconscious beyond the present-at-hand view that takes into account

the ready-to-hand aspects of the maps. After that it may be necessary to consider the maps in terms of fuzzy possibilities in order to approach the Hyper Being in-hand modality of being-in-the-world expressed by the maps and which are definitely part of the slipperiness of the unconscious itself. Then beyond that it may be necessary to look at the chaotic and strange attractors, as well as the fractal and Mandelbrot set sorts of properties that may exist at an even deeper level that takes into account Wild Being and the nature of the out-of-hand modality of being-in-the-world. We have already alluded to these properties in the strange mixing that occurs as the map unfolds. In fact in this paper we have considered these chaotic effects of Wild Being to be of central concern. But these effects that seem wild could be due to the multidimensional infolded catastrophes instead. But we must not discount the effects at the level of Process Being and Hyper Being either, which we have more or less left out of account here.

So the map of the Unconscious that we will be considering here is a present-at-hand result of the running of the Leximancer program. It gives us a starting place for delving into Shakespeare's works. Different runs of the program will give us other places in keeping with the starting multifaceted and multivalent nature of the unconscious itself. But all these starting places bear a family resemblance to each other and are not completely random because the text itself is not changing, but instead it is the simulation, which is caught in a strange attractor (or perhaps a multidimensional infolded catastrophe⁴) and is changing as it explores the phase space of that attractor. One way to think about this is to consider that the map is really in a sort of chaotic or higher dimensional motion and any one lower dimensional representation is a snapshot of that intrinsic motion of the strange attractor (or perhaps a multidimensional infolded

⁴ See Rene Thom on Catastrophe Theory

catastrophe) that lies behind any one representation of the map. We would expect there to be multiple departures into the unconscious. This is what gives us the impression of its endless depths. Actually if the intratextual unconscious is a strange attractor (or multidimensional infolded catastrophe) at its center Monte Carlo analysis will only go so far in stabilizing it. Ultimately it may not be stable and therefore cannot be made stable by any technique.

The Map Of The Unconscious

First the Leximancer software starts at the structural level of the content of texts and builds up a structural map of relations based on its extraction of concepts based on textual context sensitivity. The distances between concepts are plotted in the map. But also the attribute words underlying each concept are specified with supporting pointers into the text itself that are highlighted. It should be mentioned that it is possible to have a sentence highlighted that does not have the concept key word because other closely associated attribute words appear in the sentence. Thus, the program can discern when a concept pervades a piece of text even when the key word of the concept does not appear in the piece of text. I think this is a very significant aspect of the software it means that it can discern when a concept lays behind a sentence of text when there is no apparent sign of the marker of the concept. In this way the software moves from the sign level, i.e. the structural level to a trace level analysis of the text. The text is seen as a field of conceptual traces that has different intensities throughout the text. These conceptual traces may be discerned to be present despite the absence of specific makers that are directly associated with the concept, rather they would be seen indirectly by the presence of markers indirectly, perhaps even distantly, associated with the concept.

Another point is that the conceptual map that is built up by Leximancer is not a human generated signification map, rather it is rooted in the opacity of the text itself and it sees as concepts what is related in the text not what some predetermined meaning system projected by humans might see. This is very significant because it takes out of the equation the human projection by the critic or the author onto the text. The text in this sense is treated as a material object and its material determined relations contextually mapped. Thus the map in a way is an extension or elaboration of the material relations of the text itself. It is not considering our human sensitivities or predetermined human meanings that we might bring to the text that are a priori to our interpretation of the text. This proximate inhumanity⁵ of the algorithmic processing of the text is what takes us out beyond our normal projection of human meaning onto the text and ourselves as authors and interpreters. However, by elaborating and extending the materiality of the relations within the text we are allowed a different view of the text than we would be able to get by just reading it ourselves. Instead the Leximancer software is reading between the lines of the text and is bringing out hidden relations between elements of the text that we would not see just by reading the text. But we do not just read the results of this software algorithmic analysis, rather it is presented to us as a pattern and we apply our capacity for pattern recognition to the text rather than our reading and interpreting capability. Then, once we see the pattern of the extended text we can drill down through the concepts to their attributes and on into the text itself that supported this rendering of the pattern within the text.

One way of thinking of this map produced by Leximancer is that it is a diachronic display of the relations of concepts that are threaded

through the text collapsed into a synchronic picture of those relations that hold between the different conceptual threads through the text. So when we write or read a text we are engaged in a linear scan of the text. The Leximancer program shifts us from the time domain to the frequency domain in a way similar to a Kalman filter. In other words when we use a specific word in a text like "time" we do not think of all its nuances in all its contexts as the same. But Leximancer will look at this word in all its contexts and all the words that are closely related to it and will work out the trace of that concept as a field through the text. Then it will tell us about the relation of that trace to other conceptual traces in the text giving us a map of those interweaving traces. Thus, time becomes archetypal because as a concept it is an absence that is present differentially throughout the text based on the reading of the associations between signs at a substructural or trace level. When we look at the map we are seeing how those strands of concepts that interweave throughout the text ultimately are related to each other if we were to collapse the diachronic trace relations into a single approximate map of relations. We can think of this structure as the diacritical makers that would allow us to transform the various concepts into each other. The map displays the specific intensities of diacriticality between concepts in the text. The trace concepts are associated with makers of their own which most nearly approximate them, which is what appears on the map and as the concept names. However the entire concept consists of its diacritical relations to the other concepts plus its attributes and their intensity and relations to each other within the map. So a concept may be signified by the word time, which has a specific relation to man, King and love as in the map of Shakespeare's works. But the word time has attributes like long, love, king, man, world, night, etc. some of which may also appear on the map. So the maps may have attributes of a concept that are themselves concepts. This means that the

⁵ The program itself is written by a human so the degree of inhumanity is only proximate not absolute.

concepts are both inwardly and outwardly related to each other. When we go into *long* then we can see that it also may have the attribute *time* thus establishing circularity between the two concepts. But they are also different because the lists of attributes for each are different along with their weightings. Also each word is rooted in its use in a context in the text that is highlighted.

Now one feature of the maps is that you can zoom them in and out. When you zoom in you slowly lose concept markers until you get down to one and then that finally disappears. So the map is not just static but it genetically unfolds from nothing, to one concept, to two concepts and so on until all the conceptual signs are manifest. This genetic unfolding shows you the root concept of the entangled concept tree. The series of concepts that appear are a sequence that shows us which concepts are the most basic and which are the least basic as the concepts unfold into the field of traces that pervades the text. This is a very important aspect of the maps. This shows the meta-essence of the text rather than just its essence. The essence of the text is the constraints on all the concepts that cause them to have the attributes they have and cause them to have the intensities of relation between them and within the concepts. But the meta-essence determines the sequence of the unfolding of these conceptual traces that manifests them in a certain order of precedence from the one with the largest coverage of the text to those with the narrowest coverage of the text. It is an entangled tree of concepts that unfolds as we zoom out so that all the nodes of the map are seen. But on the other hand we can zoom in so that we only see empty space or the first concept or the first few concepts. In this process the relations between the visible concepts change as the tree unfolds. The meta-essence describes this unfolding where as the essence describes the constraints on diacritical relations of the entire completely unfolded map. One point to keep in mind is that different runs of the program may produce different maps. These differences are all to do with sampling and preserve the internal relations among the concepts. The essence refers to the internal relations within the map not with its external relations or those seen in relation to externalities. In Husserl this is the difference between the essence and the noematic nuclei. A Noematic nucleus is oriented based on external perspectives on the object, but the essence is the internal coherence of the map itself regardless of any external relations.

The Meta-Levels Of Being And The Map

What is interesting is that the map as it appears in the current Leximancer software has a homomorphism to the meta-levels of Being. The full map as seen completely unfolded is Pure Being. It is something we can point at the various constituents of and it is an object upon which multiple gestalts can be projected by the one studying the map. The gestalts can take every sign on the map as a figure on the ground of the rest of the map. The proto-gestalt is the order that any one person looks at the map, glancing from gestalt to gestalt as one inspects the map. The meta-essence produces the primal proto-gestalt inherent in the map itself. The flow of the map is its unfolding. The protoflow is the order that one zooms in and out as one inspects the map. We consider the map as we see it on the screen the Pure Map and its meta-level of Being is Pure Being and its being-in-the-world modality is present-athand and this is at the level of Form. Pure Being is determinate and continuous. Then if instead we look at the relations between the various concepts one by one we will get a picture of the essence of the map. We explore that by looking at the web pages that record the concepts and their attributes and their relations to the text. By exploring these web pages we see the structural organization of the concepts in the text. The essence of the text is the constraints on this structure. In

other words we assume that the actual organization is somewhat probabilistic depending on the words selected at the time by the author and that it could be different in details. But the essence is what would exist regardless of this probabilistic variation. The essence is the constraints, which would control the probabilistic variation in the text to give the same overall impression of the intent of the author. But in the text as we receive it this probabilistic error is missing because this is the received text including coding errors etc. So we consider the given determined structure as an example structure from the permutations of possible structures that have the same essence. At the process level the probabilistic nature of the creation of the textual artifact is taken into account. This is related to Process Being and its being-in-the-world modality is ready-to-hand. Process Being is associated with stochastic probability. The zooming in and out of the map which reveals the origin of the map and the all the nodes in clusters as they appear and disappear up to the appearance of the whole fully formed map is ready to our hands as a means of exploring the map. This is signified by the relations between all the points taking each point at a time and looking at all the nodes related to it. This shows up in the map software if you left click on the mouse button with the cursor over a map node. Lines of relation will appear from that node to all other related nodes. This aspect of the map is the visible manifestation of the process meta-level of Being in the map.

The next level of Being is seen in the unfolding of the map from zero, to one, to many nodes until all available nodes have appeared in the final full blown map. This is the meta-essence that constrains this unfolding of the map. Meta-essences are more constrained than essences. So we assume that this sequence is even less probabilistic (and in fact related to fuzzy possibilities) than the relations of the nodes to each other at any stage of unfolding, which is governed by the essence. The meta-

essence constrains the transformation of the essence. We think of the meta-essence in terms of fuzzy logic and math. We consider that there is some fuzziness to the unfolding of the map but that the probabilities only operate between nodes at each synchronic snapshot of the unfolding process. The metaessence has the nature of Hyper Being and the modality of being-in-the world it is associated with is in-hand or bearing. Hyper Being is associated with possibility and fuzziness. As with genetic growth of an animal, it is fairly rigid in the sequence of development events, so to we expect that this sequence of the generality of concepts within the text to be more rigid than the actual placing in the overall map. What makes this an example of difference, which means differing and deferring, is that as the map unfolds the relations between the nodes changes each of them moving differentially with respect to each other as the unfolding process occurs. This expanding and changing of differences as we move through time, i.e. under the auspices of a deferring, causes at each level of unfolding a reevaluation of the significance of each node in the map as their configuration changes.

Finally there is the level of Wild Being, which has a modality of being-in-the-world of out-of-hand or encompassing. Wild Being associated with fractals like Mandelbrot set, chaos and strange attractors. This is seen in the map when there is only one node on a field that is otherwise blank. This is seen as the original source node of the map. That original source node has a propensity to unfold in a certain direction throwing out another node in a specific direction. However, that propensity is hidden in the single node that looks as if it were selfsufficient and independent, but this is not the case. Instead that single node is unstable and it will give rise to a line of flight as Deleuze calls it, which we can trace as each successive node, is produced like a chain of pearls which is listed on the front page where the list of all entities is presented. What the

root concept is and what the first few nodes it creates are is key to understanding the inner nature of the text that has been mapped.

Finally there is the blank slate when even the origin node disappears. We will term that the void or emptiness of the field itself without any nodes on it. But we will also associate it with what is called ultra-being, which is the nature of the projection onto the map, by the observer. Everything over and above the map itself as it appears is a projection onto the map by the analyst or synthesist who views the map. The inner nature of all those projections is emptiness or void.

When we look at the strange attractor that unfolds as the conceptual map of the text, which reveals it's unconscious what we are seeing, is what Cornelius Castoriadis calls Magma. He assumes that Being is Chaotic, i.e. has the nature of Wild Being. This chaotic infra-nature he calls *magma*. Magma is the melting down and flowing of the hardest and most durable things in our reality, i.e. the rocks of the earth. In fact we are seeing that the flat void of the background of the map is in manifestation of the nodes of the map twisting in a chaotic manner. We can think of this as a warping of the substance or ether of space itself. The space turns into magma and up wells into our world defining a set of concepts, which form a cluster and are basic to the text itself. The source of this magma is the heated center of the earth itself. That means that there is a root source beneath the seeming calm exterior of space that erupts into our world through the text. We will call this the root of the tree, which is beyond the void of existence that is the empty space prior to the upsurge of the original source of the tree. In alchemy this is called the Sol Niger, Black Sun.

Another concept that is important here is the one that John S. Hans introduces in <u>The Play of the World</u>, which is Play as a symptom of Wild Being. There is some play in the

appearance of the map as constrained by the meta-essence and the essence. This wildness or play appears in the fact that there will be multiple maps on various runs of the system. Also because the core of the tree is mutually referring and self-referring concepts there is some randomness in what is selected to appear in the sequence of nodes by the sampling of the visualization program. This play in the map ultimately stems from Wild Being and the fact that the concepts are chiasmicly related to each other.

Merleau-Ponty in The Visible and the Invisible pointed out that the *Flesh* of Wild Being is chiasmicly or reversibly related to each other like the phases of an interval of space-time, or like phase spaces in a chaotic attractor. There is a mutual intaglio, i.e. one carved on both surfaces of a glass between the two opposite phases of two concepts that have each other as attributes as well as being related to each other externally. The internal relation between the two concepts by having each other as attributes creates a chiasmic reversibility between the concepts.

Aczel has defined non-well-founded sets, i.e. sets that violate Russell's principle that no set shall contain itself. These concepts found by Leximancer can contain themselves not only directly but also by being contained by other concepts, which they in turn contain. The map is of an entangled or braided tree, which is not well founded in Aczel's sense. This entanglement is what places the map at the level of Wild Being, but it is the mutual entanglement of the concepts that causes it to be synthetic as a reconstruction rather than analytic in the sense of deconstruction. It is a reconstruction of the root source below the surface of the void of the empty background of the map. That root is faceted, and it is the facets that appear as nodes on the map. The inner tensions between those facets determine the vectors of appearance of the nodes that place the next node at a certain distance and at a certain angle from the last node in the mapping space that warps as a strange

attractor (or multidimensional infolded catastrophe) as the nodes unfurl from the original source which ultimately arises from the root in manifestation beyond the empty background on which the map appears.

We know faceted reality from Quantum Mechanics, which tells us that the microworld is entirely made of superimpositions of states that are faceted. When we look at the empty space of the background we should know from Physics that this space is not completely empty, but is instead full of virtual particles that appear and disappear faster than we can see them. They are nodes and anti-nodes that leave the first node as an unintended side effect of their action. But this creation and destruction of conceptual nodes as the dynamic of the seemingly empty background is merely the manifestation of the macro-quantum world across the demarcation of the Copenhagen Convention. Thinking in these dynamic terms gives us a vision of the source of the magma that appears in Wild Being. It does not just appear out of no-where ex nihilo. Rather there is a deeper level of the unconscious that never appears as mentioned by Michael Henry in this book The Essence of Manifestation. This level of the unconscious can be associated with Blake's Albion, with Vishnu in India and Hun Tun in China. The nodes are the stuff that dreams are made of and these are macro quantum phenomena of the deepest level of the unconscious. We can think of the nodes as the Avatars of Vishnu or what appears at the death of Hun Tun after his "friends" bore holes in him. It is what Albion dreams in his nightmare when the Zoas commence their war with each other.

We will consider the nodes under three rubrics suggested by Christopher Smart the mad sensibility poet and contemporary of Blake who in his <u>Jubilate Agno</u> talks about "word, star, gem and herb." These are an indication of the aspects of a node in the map. The word is the name of the node that

appears on the map which has diacritical meaning with all the other words in the texts being analyzed. The star is the rays of that appear as the weighted relations with other nodes that appear when you right click on it. These are relations at a distance and thus deemed celestial. The gem is the local relation to the neighbors of that node that changes as the tree is zoomed in and out. These relations are local and thus considered terrestrial. The *herb* relates to life through eating and health and so we will consider this aspect of the node to be the relation with the conditions of life in the society and culture that produced the text. The insight of the mad Smart which in Deleuze and Guattari's schizoanalysis indicates the embeddedness of the terms of the map in a rhizome, is that each node has at least the following aspects celestial (star) and terrestrial (gem), sensory (herb) and meaning (word). These are realms or horizons in or against which the nodes can be interpreted. Smart's own text is an excellent example of the protruding of desiring machines from the body without organs, i.e. the orthogonality of the unconscious. But what protrudes in his Let... or For... statements are from the viewpoint of Smart not just words, but each animal, or biblical name, or other referent is also a gem, herb and star. Nodes have close and at distance relations with other nodes that are depicted in the maps and in the relationship strength lines that can be made to appear. Nodes have a relation to life itself as lived in the day that the text was written. We need to consider all these aspects of the terms that appear in the maps in order to get the full benefit from our interpretation of them.

The Tree Of The World

The map of the text is an entangled tree of concepts. As concepts they are really traces of concepts, not really there in the signs that mark the concepts but something that haunts the text. But each concept when considered as a node in the unfolding of the map can

also be seen as a hidden propensity to give off the next node in a certain direction, which has a certain transformed nature.

So for instance in the Shakespeare map on the Leximancer site there is an empty void of the map and into that appears the root node of the King. Now that King, which may be considered a stand-in or marker for the Universal man as he is in Alchemy, has a hidden propensity to produce another node. Notice also that this King is not dead center in this particular map, but as such he is decentered by a specific amount in a specific direction. But be that as it may the King then gives rise to the next node which is love. Love appears directly opposite the King horizontally. Notice that it is Love that covers the greatest scope of the text, even greater than the King, yet Love appears second. This is due to the entanglement of the tree. Love is of greater scope but the King appears first. Love gives rise to man which is orthogonal to the true line between king and love. Then man gives rise to time, even though lord has a greater scope than time. Time is on the same orthogonal plane as man. Man and time are orthogonal to love and king. This is an interesting pattern which of course would be somewhat different in other versions of the map. It is serendipitous that these core concepts are orthogonal in this particular map. But we will take advantage of that coincidence as a point of departure into the unconscious of the intratext. It is this sort of synchroneity which we see in this map which may be seen as an aspect of the manifestation of unconscious itself. In fact, it reminds us of the pattern of the Self-archetype that Jung finds in his work Aion in a quaternary of quaternaries known as the marriage quaternary of Moses. In that Quaternary there is a set of symbols, which are in two orthogonal pairs, which are the Anthropos (King) and the serpent (time), which are crossed by Moses (man) and the quintessence (in this case love). Note that there is a structural reversal between Shakespeare's quaternary and that of Jung which pairs King and Love with Man and Time. But a similar quaternary is seen here in the map of Shakespeare as Jung finds in the core of Alchemy. If we ask ourselves if Jung's quaternary has a basis then all we have to do is look at the story of Gilgamesh. There Gilgamesh (man) after Enkidu's death sets out to see the Sumerian Noah (king). After he finds his out-of-this-world abode he is given the plant of life (quintessence, love, water of life) and then he heads for home but loses it to a serpent (time) who makes off with it so that he loses immortality for himself and his people. It is clear that this quaternary has some deep significance in our tradition which Jung keyed into and we see it here unexpectedly also at the center of the map of Shakespeare's texts unconscious.

Why is this map of Shakespeare's texts unconscious? Because he cannot have in mind all the uses of the words time, life, love, and king and their associated signs in his plays as he is writing, yet his unconscious produces this synthesis that gives us the quaternary orthogonally arrayed as it is here in this map. It is as if all the differance in the text produced a single field, which was organized as a chaotic strange attractor (or perhaps multidimensional infolded a catastrophe) at the level of Wild Being. Now that gives us a basis for interpreting the other nodes as they genetically unfold. For instance, the word *heart* is the next to appear within the map. So we can see the heart as a concept that appears within the context of the quaternary of King, time, man, and love. But we note it is off center. Down the line in the finished map it will be the Father who appears at the center of the map. This centrality of the father is very significant from a Lacanian point of view and we will see that the *father* is a concept that is close to the heart concept of Shakespeare. Lord has already appeared in the list and that expresses the address from the man to the king. Next to appear are Great, God and Father. Heart is toward the direction of

Love, Great, which is neutral, is in the middle and God is along the same line toward the direction of the King. Long then appears beyond time to the south. A long time stretches the boundary of time. Next appear speak, eyes, world, fair, day, night, France, death are next to appear. Except death they form a membrane from upper left toward the bottom center. *Death* appears between great and father. Now each of these concepts are best considered as absences not presences. In other words they are traces that haunt the text. As each appears it signifies a line of flight in a certain direction from the last node. As the nodes are appearing they are transforming into new qualities. These qualities are absences within the text that condition our way of looking at the text as we apprehend the concepts woven into the surface of the text. So it is not possible to give a positivistic interpretation of the nodes and their relations and attributes. They are presences of absences that display a propensity. Thus, they are bound up in the level of Hyper Being and Wild Being and we should not think of them overly concretely as things but rather tendencies and etchings into the realm of possibility that underlies our appreciation of the text. They are moments of the unconscious, or thinking along with Jung we can think of the map as a complex. But there the complex is a set of word associations. Each word is said and then the next word is associated with it. As the words are associated a chaotic mixing pattern is produced within the overall space of the map. We can see this chaotic mixing if we were to draw lines tracing the nodes in the order of their generation on the completed map. But this does not give a clue to the fact that the actual space of the map is being warped as the individual nodes give rise to each other. As we continue to zoom out then more and more nodes are filled in and the chaotic mixing of the space of the strange attractor (or perhaps a multidimensional infolded catastrophe) of the map continues to unfold. Eventually we see the entire map. In the final map the four nodes of the quaternary are still

more or less orthogonal to each other but shifted down somewhat further and Father is in the center. *Father* is the thirteenth node to appear from the mutations of the essence under the constraint of the meta-essence. So the central node appears rather early in the sequence after *God* which is seventh to appear.

The fact that the King is the first to appear harkens back to the idea of the Anthropos, which appears later as Albion in Blake and the overman in Nietzsche. Under love we see as attributes heart, man, fair, lord, eyes, king. Under king we see, as attributes lord, Queen, God, man, love. So we can see that between love and king there is a chiasm where king is closer to love than love is to king. Within this chiasm under love we have heart, man, fair, lord and eyes while under king we have queen god man. So man cancels form the two equations and the King loves both god and queen. While love relates to heart, fair, lord and eyes. If we look up man, which appears in both lists of attributes, then we see love, king, men, lord, great, world, heart, life, god, etc. Love and King are close to each other in man but love is the highest with world, heart, life and god coming later. All these various balances between the concepts are taken into account in deciding which concepts appear first and in what order in the tree.

Our world tree is composed of dualities. The greatest of these are logos and physus and underlying them finitude and infinitude. These do not appear on Shakespeare's world tree but instead we have opposites like man/god, man/king, man/father also we might include father/king or father/god. Then come king/queen, god/world. Then come night/day, life/death, etc. These opposites are the dualities in the tree of the world. And against these are posed the non-duals that arise in the unfolding of the tree itself.

Non-Duals At The Core Of The Tree

At each level of the world tree there are nonduals that are between and beyond the dualities. In terms of the meta-physical worldview of the Indo-Europeans the tree has the form of a duality between physus and logos that is underwritten by the duality of finitude and infinity. But between physus and logos is the nondual of order and between finitude and infinitude is the non-dual of rightness. When we go deeper we discover having and not having with the non-dual of the Good. Going still deeper we discover existing and non-existence with the non-dual Good and Fate are the representable intelligibles of Plato's divided line. Beyond them are the unintelligibles of source and root. Source is between actualization and non-actualization while root is between non-manifest and manifest. Now in the unfolding of the entangled tree of the unconscious of the text these non-duals appear. The original source is the first node to appear out of the void. It appears from the unmanifest root of the tree on the other side of the void of the empty background without any nodes. After that the nodes are sources that appear from the original source that is archetypes, which are totalized absences rather than unified presences of ideas. The core sources that appear up to that which eventually appears as the center of the map forms the primal scene of the map. The more nodes between the original source and the center source the more complex the primal scene. From an archetypal perspective these nodes are signs of traces or absences that exist in a totality, the totality of all their appearances in the haunting the text. Each node is a source because in the genetic unfolding they each give rise to the next one in the series of genetic unfolding determined by the meta-essence. How the unfolding occurs is fated. That is to say the propensities for ejecting the next source and the necessity for it's being a specific node in the entangled tree is determined by fatedness which is the weird we dree which means to endure suffer. We suffer the transformations of the meta-essence as we do

in our own genetic unfolding in development. It is beyond our control. However the production of the nodes in their entangled determined by entanglement creates a variety, which is the aspect of the good. Good is variety production. What is good for one person is not good for another. So goodness is relative to the person involved but overall the production of variety is good for everyone. So a variety of source or archetypal nodes are produced which we see concepts. These concepts representations of traces that haunt the text and we can discern sets of opposites in them, which bifurcate the map. This bifurcation is a manifestation of rightness as opposed to the randomly imposed coordinates of the map, which bisect the map of the space itself. For this map the divisions based on opposites are right in the sense of rta, which means originally cosmic harmony. Then ultimately the map appears which has its own implicate order. We have seen the chaotic mixing as the map unfolds. This mixing is analogous to the stirring into the solution of the empty space of the map of the particles of ink that David Bohm talks about in his book Wholeness and the Implicate Order. The unfolding of the map is implicate order that underlies the explicit order of the map itself.

The next nondual up from order is infoenergy or chi. Chi is the subtle energy that occurs at the level beyond meta-essence, i.e. in Wild Being. We do not understand wild being in our culture very well because we are fixated on essences and meta-essences. We ignore what Blake called the minute particulars. But these minute particulars have their own patterning principle, which is called Li. And the unfolding of the pattern that embraces them is called the energy of Chi. In the Chinese arts there is an attention to the minute particulars of things which is prized and which are sought after and not eliminated by mass production which is based on the reproducibility of the essence nor in flexible manufacturing which is based on the programmability of the meta-essence. Each

manifesting node is in a direction and at a distance from the last node. That distancing gives a measure of the Chi in the map and shows us the inner Li or implicit patterning that then becomes apparent, as the map is fully manifest. Li is hidden in the emptiness of the blank map prior to the appearance of the nodes. As the nodes appear their mutation gives us some idea of the chi, which is released in the qualitative differences between the nodes, the direction and distance of their successive ejections. But then the Li of the patterning of the nodes becomes fully manifest as a pattern that is just so which is a collapsed diachronic threads of concepts throughout the work which like the veins in Jade give it a peculiar quality all its own. These particular nodes in this particular pattern give us some hint of the Li of the work, i.e. the inner principle at work in the text in terms of the unfolding of its unconscious. Chi and Li always appear together. Li and Chi are something that appears at the level of Wild Being, which is a level we are not used to dealing with in the West but which the Chinese culture valued highly. Li is the uniqueness of the patterning of the thing itself which becomes manifest in particular upholding process which manifests Chi. The map allows us to see better the Li underlying the work by showing us the unconscious of the text, i.e. the embedded structural relations that are based on traces of the concepts or archetypes that haunt the text that in turn is based on the opacity and materiality of the text itself. Text is both logos and physus. But we normally see it in terms of the logos, which appears when we read the text, and it makes sense to us in our language. But the text has a materiality too and it is that materiality that the software program is dealing with. That materiality has its own concepts by which it comprehends the text that are inhuman, based on purely contextual and relational analysis by the software algorithm. Now the texts are limited and finite but they are pointing at something unlimited which is the spirit and meaning of the author who wrote them. So we use the mapping program to get some insight into that spirit or meaning. The way we can do that is to watch the tree of the text unfold from emptiness or void. That unfolding has its own Chi and Li, which is manifest in the unfolding process. In the unfolding process all the meta-levels of Being are addressed and we can see the object in its full panoply within the world. Any matter at hand that expresses all the kinds of Being together is called *a face of the world*.

We can consider the coordinates as truth and right. The coordinates are true lines through the space at right angles fixed on the origin of the sign space. The root of the text is hidden but we see it as if from the inside in the unfolding of the text. We can think of the sign space as a proxy for what is happening in the root of the text outside the sign space where the map unfolds. Thus the nodes of the map are deviations from the true and the right of the coordinates and it is in that deviation that they contain meaning. They unfold warping the space within the arena of the map and thereby producing the boundary of the cluster of map nodes. So we can see the map is a meta-system of signs that are interpenetrating in the sense that the signs of the map contain the signs of the map mutually. It is a reflexive system constituted by the algorithm acting on the text bringing out the inner relations between the elements of the text as an infrastructure to the text itself that then can be used to read the text. The text can be searched and replaced with italics when every key word is encountered in the text so that when we read the text those concepts will stand out to us and inform our reading, letting us know where we are in the attractor (or strange perhaps multidimensional infolded catastrophe) of the map. But this is only a sign of the traces that haunt the text and thus give us some insight into the manifestation of those traces of the unconscious of the text within the reading of the text itself.

The map contains conceptual and archetypal

absences that control the presence within the text. The individual signs of a concept are the same but different due to their differential placement in the text. What is identical but different according to Heidegger is the Same. The concepts are the Same because they are differing and deferring themselves throughout the text. But in the process of reading they support a showing and hiding, absenting and presenting that plays games with our understanding and our intellectual comprehension of the text. So identity and difference appears in the surface level of the text itself with respect to the archetypal concepts. But the real and the true are in the hyperspace of the archetypal sources that exists as a strange attractor (or perhaps a multidimensional infolded catastrophe) always already absent from the text itself, in the unconscious of the text. orthogonality of the map which in this case is reduced to two dimensions but is really a higher dimensional space allows us to define the combination of true and real aspects in the unconscious of the text which manifests the presence and identity aspects of Being. The kinds of being are another way of looking at it, which appears in the differentiation of the unfolding map itself as defined by the Leximancer algorithm. But this is just one manifestation of the possible structures by which the kinds of Being might be made manifest as the mapping of the unconscious of the text. Here the conscious text is at the level of the ontic while the metalevels of Being are inhabited by different aspects of the map itself. Other mapping algorithms would conform differentiation of the kinds of Being even if they differed in details. This is because the meta-levels of Being are the infrastructure of the world itself and that cannot be violated.

The Mapping Of The Unconscious Of The Tradition

Leximancer is just the beginning of the process of data mining our own tradition. As

the process goes forward it will lend us proximate inhuman perspectives on the texts that comprise our tradition. But the difference of Leximancer is that it is set up so that we can interface with the results on a cognitive level. That is to say it shows us the intratextual unconscious of the texts of our own tradition in a way that we can easily relate to because it is mimicking our own concepts. But these are concepts of absences not the presences and unites of ideas. That is why they are alien to us, which is why they represent the unconscious of the text and not necessarily ourselves as authors. But as the unconscious of out texts they indicate what might be going on in our own unconscious, they are at least a side effect of the unconscious synthesis of the entire work. To get at our own unconscious processes it would be necessary to apply Leximancer to the texts of all our thoughts and dreams which at the moment is impossible to treat as texts because we have no way to extract them from our minds. To us it is interesting that at the center of Shakespeare's map is the Father, but that the first node is the King as Anthropos, and that the initial configuration is like the Quaternary of alchemy discovered by Jung and confirmed in the Epic of Gilgamesh. So this lends credence to the idea that there is at root some alchemical basis for the works of Shakespeare as there were for so many of his contemporaries. It is interesting that the first thing that appears inside this quaternary is the heart and then out of that by a meta-essence transformation appears God and then after that the Father and then from these everything else arises in the strange attractor of the intratextual unconscious of Shakespeare's works. How knowing this map along with the other possible maps derived from the texts of the plays will transform our understanding of Shakespeare is yet to be seen. However, we can wonder how Shakespeare managed to internalize the alchemical quaternary so that it appears in the unconscious of his texts. We can also wonder at the primal scene in which the *heart* enters this quaternary and unfolds

into god and the father as the center of the texts. One way to explore this further would be to search for sentences that contain several of these key words and to see what they say as is done in the Appendix. But what is important is that it takes us beyond what we could perceive by our unaided intellects like so many computer simulations. However, this is a simulation that gives us insight into a quality of the text itself that we had not imagined before. It takes into a virtual realm of the orthogonalities beyond the text of truth and right when the text is taken as context free but in itself utterly infolded contextuality. Thus this unconscious is divorced from reality. It appears as a kind of autopoietic realm where the text is taken as independent and self-producing setting up a reflexive interior or mirror house out of itself. The text produces itself out of the strange attractor that controls its concepts that haunt the text. In the space of that strange attractor there is a reflexive social world within the unconscious of the text itself between the signs that are lost in the warped traces of the infolded space of signification with its implicate order. All the appearances of a sign in the text mirror each other and repetition causes the space of signification to be folded through itself multiply. The multiple maps of the text are like the simulation of the reflexive images of the text that appear within the social or collective unconscious.

What needs to be stressed here is that by moving to the level of Wild Being from Hyper Being we are able to look at a synthesis of the field differance that haunts the text rather than merely individual rills and furls of undecidability found here and there as deconstruction thrills to point out. This is not to say that Deconstruction does not have a point when it indicates to us the presence of Hyper Being beyond the monolith of Pure and Process Being. But we need to follow Merleau-Ponty, Deleuze, Hall, and Castoradis and complete this point with its dual, which is the intimation of the

existence of Wild Being beyond Hyper Being. This is a kind of synthesis based on chiasmus, reversibility and intaglio rather analysis afforded us Baurdillardian simulation of the text by the Leximancer program. Through Wild Being we can gain access to the synthetic unconscious of the text itself, which encompasses the field of traces of difference within the work, which perhaps says something about the unconscious of the author and the critic when we compare their projections to the inhuman identification of conceptual sources within the text. Looking at texts via data mining operations is a new kind of instrument that allows us to see inside the workings of the text itself as an intercontextual community of signs or an intratextual meta-system of signification which forms what Bataille calls the General Economy of the text beyond the restricted economies of our hermeneutic circles. We are peeking into what Arkady Plotnitsky calls the shadow of the system of the text in his works In the Shadow of Hegel Complementarities. There we find that there is an internal mutual reference of these concepts and a self-reference of them at their core from which all the differance flows. That internal chiasmic mutual reference and self-reference give us insight into reflexivity and autopoiesis at the core of the intratextual unconscious which is part of the dissipative ordering of those texts that occurs through practices of desiring, avoidance, dissemination and absorption. The text desires and thus brings close certain concepts to one another and avoids by pushing other concepts away from each other. The text disseminates the nodes of the map in its unfolding strange attractor and the text absorbs all its nodes into itself so that they are seen as facets of the root of the tree beyond manifestation, i.e. the realm of meaning beyond the void.

We end by positing the geode theory of meaning. Each thing in the world is like a geode, which is hollow and crystalline within

a spherical rock. That rock is made up from water running though bubbles in mud over eons laying down a deposit of crystals that grow up toward the central emptiness. It is out of the central emptiness or void that all meaning flows into existence. This meaning is different from the projected significations of the diacritical system or the meta-system. This meaning up-wells into existence and then is projected back onto existence by us as signification through the production of Being. When we look at the map of the Shakespeare we are seeing an example of that world creating meaning upwelling through the void of existence to become projected Being. In Shakespeare that interplay between Being and Existence is seen in the Ouaternary of King, Love, Man and Time. Within that framework we find our heart to project the ultimate fiction of God, which in Christianity we also call Father conflating creation with generation and producing a view of the central paradox of the Western Tradition. That central Quaternary which is seen by Jung among the Alchemists and which we see in the Epic of Gilgamesh is an image of the Emergent Meta-system that combines all the Special Systems with the normal system in a fundamental dynamic that underlies all the projections of Being and gives us some insight into the dynamic of existence itself which is known in our tradition as the dragon (Python, Typhoon) which is slain by the George, Hero (St. Zeus, Apollo). Shakespeare gives us insight into this invisible pulse of the waters of life that arise from the void beneath the projections that seek to stamp it out. It is because of this insight that Shakespeare can be said to inaugurate the depth psychological way of looking at things within our tradition, which was carried on by Blake, Nietzsche and Jung as they explored the Dionysian, Apollonian and other views of the unconscious. The kind of simulations that Leximancer provides of the texts of our tradition give us insight into the intratextual unconscious which in some small way might

also give us some insight into our own unconscious as authors and writers through traces left in our works.

The Multi-dimensional Infolded Intratext

In what we said above we concentrated on one map produced by the Leximancer program and attempted to see how it might be read as a face of the world, i.e. as a concatenation of the kinds of Being in such a way that it gives us access to the unconscious of the practico-inert textual artifact. But the question arises how much these maps change with different runs of the Leximancer program and how we should interpret those differences. In order to answer that question ten runs with the same configuration file. seed file. Shakespearean text files were made and compared. It turns out that the change from one version of the map to the next can be considerable, but still a family resemblance can be seen as you look at the various versions of the map. If you do averages and standard deviations across these maps you see that the change due to flipping and rotation is too much to capture any overall probabilistic pattern. What would be needed is some type of fuzzy geodesic measure of resemblance that takes into account all the symmetry operations on the map. Since at this time that sort of measure does not exist, it behooves us to continue on to study the higher dimensional matrix from which the map is produced. This is an $n \times n$ table of the relations between all the concepts, or conceptual matrix, found by the Leximancer program that is output in a form which can be taken into an Excel spreadsheet and analyzed. An analysis of this matrix shows that it does not change very much across ten runs of the program. Thus where the maps change to a fair degree because of problems of multi-dimensional scaling the conceptual matrix changes very little. This matrix is

fairly symmetrical around the diagonal. The diagonal records the absolute incidence of the occurrence of each concept in the text while the triangular wings of the matrix record the relations to and from each and every concept to all the other concepts. This matrix is ideal for a clustering analysis and a program that would accept such a matrix as input was found which was produced by John Brzustowski⁶. This program called *Cluster* 1.0 allows the selection of various clustering algorithms which lets us see the outlines of the multi-dimensional infolded intratext that lies behind the maps itself. These clustering maps are themselves very complex and large but they give us some idea of what the intratext behind the maps is like and they are stable over multiple iterations of the program because multi-dimensional scaling problems do not occur when we work directly with the conceptual matrix itself. As an appendix to this paper may be added a set of these clusterings of Shakespeare's works. Analysis of the matrices shows that the four core concepts love, King, man and time are central to all of the conceptual matrices because they have the highest absolute incidence in that order. But the clusterings discover many substrata in the multidimensional infolded intratexts that stand behind the Shakespearean text and this pushes back the problem of the maps to another level because different clusterings reveal different arrangements of the trees of clusters. So even though we do not have the level of change that we found in the maps we have instead different clustering methods that produce different results so that when we take all the possible clusterings of the multidimensional intratext we have an incredibly complex set of possible cluster trees. This is like looking at the entire Mandelbrot set at once rather than zooming in on a little piece as the map does. The map is a summary in which much information is lost but which despite its changes captures a view of the essence of the interweaving of

traces throughout the text. For instance when we ran the various version of Leximancer against the text we saw that the nodes on the map moved but still retained a family resemblance to each other. This moving stops when we consider the conceptual matrix itself through its clusterings, but the number of possible clusters is high and we can easily get lost in this forest of cluster trees and miss the essence that is given by the changeable maps. We should consider that the various versions of the maps are analogous to the many clustering trees. Both give us crucial insights into intratext. But because we are dealing with the unconscious of the text neither is going to be definitive. What we loose through movement of the maps is compensated by the number of different possible clusterings of the conceptual matrix. So if things are static then we have too much information to process. If things change then we are losing information through those changes across versions of the simplified maps. Either way there is uncertainty, which is exactly what we would expect in dealing with such a slippery subject as the unconscious of the text. However, we should try to make use of both of these sources of information about the intratext. But any one map or any one clustering tree will only stand as a point of departure into the intratext. The intratext itself is too complex for us to understand directly in the same way the Mandelbrot set is too complex to comprehend at once. In exploring the Mandelbrot set we pick an area and dive in getting a map of that area which then we zoom in further on until we get tired of that area and pick a different area. Similarly we can produce maps which reduce the complexity and give us a glimpse of how the traces of the archetypal concepts interweave in the text or we can go up to the 100,000 foot level and see the various clustering trees that we have equal problems deciding between but which overwhelm us with detailed information that is different in the various clustering trees. So when we compare the changeable and information

⁶ See http://www.biology. ualberta.ca/jbrzusto/

poor maps to the cluster trees we begin to appreciate them anew. They are a way for us to glimpse the essence of the trace structure in the text at the risk of losing a lot of detail. We can have all that detail in the cluster trees but when we have it then it is difficult to know how to decide between clustering techniques and it is difficult to synthesize the vast quantities of information in the stable trees. Both maps and cluster trees are reflexive images of the intratextual unconcious. The maps are on a human scale where our pattern processing capability can be used to perceive the essential interweaving of archetypal traces in the text. The cluster trees show us the various possible ways of clustering the multidimensional intratext which gives us some insight into its infolded nature. The infolding is seen in the indecisiveness of the clustering which groups one way under one technique and another way under another technique. Like the higher dimensional topologies seen in catastrophe theory these various clusterings fold through each other in various ways producing attractors that shift and change as we take different approaches to the intratext. The different clusterings show clearly the undecided nature of our views of this multidimensional intratext. But in this case as with the maps we are getting a synthetic view of the intratext because each clustering tree is a whole which remains static across various runs of the Leximancer program. It is the synthetic nature of the maps and of the clustering trees that gives us insight into the level of Wild Being beyond Hyper Being. There is a synthesis of the unconscious of the author that leaves it's traces and propensities as a multidimensional infolded set of catastrophic attractors. It is hard to say whether this attractor is strange or not but if not it is at least highly complex and suggestive in terms of its macro-structures. By dealing with the macro-structures and micro-structures though the cluster trees and the concept maps we can attempt to get some inkling at the meso-structural level that we can comprehend of the tracings and chiasmic intaglio of the intratext which is the unconscious traces and propensities that still haunt the practico-inert text.

Conclusion

Intertextuality is a movement, which attempts to show that the play of works off each other from different time periods or genres can be fruitful. It brings to the fore the consciousness of the critic who knows to apply the results of analysis from one set of texts to another to get fruitful insights. It treats a set of texts as a system, which it takes a gestalt of from various perspectives brining together different texts as successive figures of the gestalts that it produces. This artificially constructed system of intertextually relevant texts is a projection of the critic in the environment of the set of all texts, which is the meta-system, or ecology in which the intertextual project flourishes. It is the complement of the set of texts that are the work of the author.

Intratextuality takes a single text or set of related texts and treats them as a closed system of contexts which produces internal to that set a meta-system of signification. If elaborate all the contextual and situational aspects of signification within the text set under consideration and display it for our pattern recognition capabilities that gives us a completely different way of relating to the text that brings out things in the text that we would not have known otherwise. What we see are patterns of the traces of concepts or archetypal sources within the text. As we explore those traces and propensities beyond determinate words and signs we see when reading and we project in writing with data, information, and knowledge mining software and visualization software we are delving into the intratextual unconscious.

The unconscious traces in texts are a new horizon for literary criticism and depth and archetypal psychology and sociology to

explore. That exploration marks one step toward the realization of Foucault's claim that that the next episteme will leave the idea of "Man" behind. Both the author and the critic as projectors of texts are left behind in our search in the post-formalist and poststructuralist and even post-deconstructionist era for a deeper understanding of our interface with the world which leads us to understand the kinds of Being and the face of the world as it exists within our texts as archetypal structures that are independent of us, i.e. that have a life of their own, and life which appears in the simulations of texts that bring out their intratextual patterning beyond what we at the human scale could realize unaided by computer software that allow us to engage in data, information, and knowledge mining of our own works and which brings out aspects of those works to our pattern recognition senses that we could not know otherwise but which were synthesized there in our unconsciousnesses and lives on haunting our texts as traces incised into their metasystemic fabrics and fields in ways we did not expect.

Appendix: Leximancer Tables

These tables contain concepts from the works of Shakespeare with absolute and relative weight from Leximancer output.

love 18675.1 100%
King 17759.6 95%
man 16576 88.7%
lord 15138.6 81%
lord 15138.6 81% time 13916.7 74.5%
long 9419.7 50.4%
God 8999.2 48.1%
Exeunt 8679.7 46.4%
heart 8060.5 43.1%
Exit 7334.2 39.2%
men 7239 38.7%
great 6965.1 37.2%
father 6952.6 37.2% Duke 6907.6 36.9%
Duke 6907.6 36.9%
life 5899.4 31.5% blood 5637 30.1%
blood 5637 30.1%
world 5624.5 30.1%
world 5624.5 30.1% Enter 5607.3 30%
eyes 5600.6 29.9%
hand 5548.8 29.7%
Falstaff 5390.3 28.8%
speak 5334.5 28.5%
Gloucester 5238.5 28%
Queen 5228.8 27.9% death 5159.1 27.6%
Prince 5042.6 27%
Caesar 4895 3 26 2%
Prince 5042.6 27% Caesar 4895.3 26.2% day 4844.1 25.9%
fair 4840.1 25.9%
night 4660.4 24.9%
France 4510.8 24.1%
son 4477.8 23.9%
Brutus 4242.2 22.7%
Antony 4143.5 22.1%
Hamlet 4067.8 21.7%
sweet 3983.3 21.3%
King_henry 3859.6 20.6%
fear 3766.8 20.1%
Warwick 3740.7 20%
heaven 3736.3 20% York 3700 19.8%
poor 3413.7 18.2%
head 3309.2 17.7%

England 3248.6 17.3%
Iago 3196.8 17.1%
Clown 2922 15.6%
Othello 2817.7 15%
Rome 2804.3 15%
Timon 2730 14.6%
King_richard 2594.3
13.8%
Antonio 2412.8 12.9%
eye 2404.6 12.8%
Speak 2362.6 12.6%
Cleopatra 2320 12.4%
Lear 2227.1 11.9%
Buckingham 2176.3 11.6%
Troilus 2112.4 11.3%
Messenger 2069.5 11%
Richard 2043.2 10.9%
Suffolk 2016.1 10.7%
Edward 1997.9 10.6%
Hector 1929.5 10.3%
Servant 1841.9 9.8%
Kent 1803.9 9.6%
Macbeth 1793 9.6%
French 1732.6 9.2%
English 1695.2 9%
Bolingbroke 1682 9%
Henry 1663.2 8.9%
Prospero 1504.9 8%

Some entities related to love

heart 1976.1 10.5%
man 1798.2 9.6%
fair 1437.2 7.6%
time 1411.8 7.5%
lord 1375.1 7.3%
eyes 1296.3 6.9%
King 1287.8 6.8%
sweet 1083.9 5.8%

Some properties of *love*:

King 1287.8 6.8%
Duke 844.2 4.5%
God 528.7 2.8%
Queen 443.2 2.3%
Exit 427.4 2.2%
King_henry 405.2 2.1%
France 386.7 2%
England 367.4 1.9%
Troilus 337.1 1.8%

Some words appearing in the context of *love*:

Love 1558
Heart 218
Mine 187
Man 180
Time 156
Lord 154
Fair 152
Eyes 145
True 138
Sweet 125
Father 118
Men 107
Eye 103
Life 102

Appendix: Word Searches

For Shakespeare search engine see http://www.it.usyd.edu.au/~matty/Shakespeare/test.html

All key words underlined when found even if not explicitly searched for in order to show interweaving of themes indicated by the identified concepts.

Bold underlined key concepts core of the map e.g. love, king, man, time, heart, God, father

Bold concepts between King and Father other than the key concepts.

Italic wavy underline concepts between Father and Queen

Italic dotted underlines concepts between Queen and Son

Search for love & king & man & lord

The following words appeared in your search: man: 1838 love: 2228 lord: 2682 king: 1351

King Henry VI, Part ii

Act 3, Scene 2

SALISBURY [To the Commons, entering]

Sirs, stand apart: the **king** shall know your mind. Dread lord, the commons send you word by me, Unless Lord Suffolk straight be done to death, Or banished fair England's territories, They will by violence tear him from your palace And torture him with grievous lingering death. They say, by him the good Duke Humphrey died; They say, in him they fear your highness' death; And mere instinct of love and lovalty. Free from a stubborn opposite intent. As being thought to contradict your liking. Makes them thus forward in his banishment. They say, in care of your most royal person. That if your highness should intend to sleep And charge that no **man** should disturb your rest In pain of your dislike or pain of death, Yet, notwithstanding such a strait edict, Were there a serpent seen, with forked tongue, That slily glided towards your majesty. It were but necessary you were waked, Lest, being suffer'd in that harmful slumber, The mortal worm might make the sleep eternal; And therefore do they cry, though you forbid, That they will guard you, whether you will or no, From such fell serpents as false Suffolk is. With whose envenomed and fatal sting. Your loving uncle, twenty times his worth. They say, is shamefully bereft of life.

It is important to note the Dragon mentioned in this passage. The dragon is the symbol of existence in the western tradition, which is defeated by the Hero in his assertion of the projection of Being over Existence. It is significant that the Dragon appears in a passage referenced by the four first keywords in the list generated by Leximancer. It is evidence that the Dragon as the Emergent Meta-system that shows the dynamic of existence is what is being covered over and alluded to simultaneously by the Quaternary of King, Love, Man and Time.

King Henry VIII Act 3, Scene 2

CARDINAL WOLSEY This, and all else This talking <u>lord</u> can lay upon my credit, I answer is most false. The duke by law Found his deserts: how innocent I was From any private malice in his end, His noble jury and foul cause can witness. If I <u>love</u>d many words, <u>lord</u>, I should tell you You have as little honesty as honour, That in the way of loyalty and truth Toward the <u>king</u>, my ever royal master, Dare mate a sounder <u>man</u> than Surrey can be, And all that **love** his follies.

Here Wosley who is the villain in this play is speaking in a way that weaves king, love, man and lord together. However there is no clear significance to the passage with respect to the union of the four key terms. We might want to do a search of each of them in threes to pursue the matter but the number of quotes brought up by such a search is too many to be dealt with in this limited space. Wolsey is plotting the downfall of men and women with regard to the king's alliances, loves and marriages and claiming a love of the king as his motive.

Search for king & man & lord & time

The following words appeared in your search: man: 1838 time: 1123 king: 1351 lord: 2682

King Henry IV, Part ii

Act 1, Scene 1

MORTON 'Tis more than <u>time</u>: and, my most noble <u>lord</u>,

I hear for certain, and do *speak* the truth,
The gentle Archbishop of York is up
With well-appointed powers: he is a <u>man</u>
Who with a double surety binds his followers.
My <u>lord</u> your <u>son</u> had only but the corpse,
But shadows and the shows of *men*, to fight;
For that same word, rebellion, did divide
The action of their bodies from their souls;
And they did fight with queasiness, constrain'd,
As *men* drink potions, that their weapons only
Seem'd on our side; but, for their spirits and souls.

This word, rebellion, it had froze them up,
As fish are in a pond. But now the bishop
Turns insurrection to religion:
Supposed sincere and holy in his thoughts,
He's followed both with body and with mind;
And doth enlarge his rising with the *blood*Of fair <u>King</u> Richard, scraped from Pomfret
stones:

Derives from heaven his quarrel and his cause; Tells them he doth bestride a bleeding land, Gasping for *life* under *great* Bolingbroke; And more and less do flock to follow him.

Rebellions are discontinuities in the flow of time for the state. The most poignant image is in the line "This word, rebellion, it had froze them up, / As fish are in a pond." Which talks about the freezing, which is the opposite of the rupture of revolution. This is significant in respect to the introduction of time into the mix of concepts

because it points to the frozen and static Pramenidian Pure Being which gives way to cracks of the type that appear in Hyper Being which are nihilistic opposites around the center of Process Being which is Heraclitian Flow. The passage talks about the fear of the king how followers of the rebellion become merely appearances when there is any mention of it. So there is a way of intertwining the relation between men and the king with respect to time in this passage, which is interesting.

Search for love & king & man & time

The following words appeared in your search: man: 1838 time: 1123 love: 2228 king: 1351

King Richard II

Act 5, Scene 5

KING RICHARD II I have been studying how I may compare This prison where I live unto the world: And for because the *world* is populous And here is not a creature but myself, I cannot do it; yet I'll hammer it out. My brain I'll prove the female to my soul, My soul the **father**: and these two beget A generation of still-breeding thoughts. And these same thoughts people this little world. In humours like the people of this world. For no thought is contented. The better sort, As thoughts of things divine, are intermix'd With scruples and do set the word itself Against the word:

As thus, 'Come, little ones,' and then again, 'It is as hard to come as for a camel To thread the postern of a small needle's eye.' Thoughts tending to ambition, they do plot Unlikely wonders; how these vain weak nails May tear a passage through the flinty ribs Of this hard world, my ragged prison walls. And, for they cannot, die in their own pride. Thoughts tending to content flatter themselves That they are not the first of fortune's slaves, Nor shall not be the last; like silly beggars Who sitting in the stocks refuge their shame, That many have and others must sit there: And in this thought they find a kind of ease, Bearing their own misfortunes on the back Of such as have before endured the like. Thus play I in one person many people, And none contented: sometimes am I king; Then treasons make me wish myself a beggar, And so I am: then crushing penury Persuades me I was better when a **king**: Then am I king'd again: and by and by

Think that I am unking'd by Bolingbroke, And straight am nothing: but whate'er I be, Nor I nor any man that but man is With nothing shall be pleased, till he be eased With being nothing. Music do I hear?

[Music]

Ha, ha! keep time: how sour sweet music is, When time is broke and no proportion kept! So is it in the music of men's lives.
And here have I the daintiness of ear To cheque time broke in a disorder'd string; But for the concord of my state and time Had not an ear to hear my true time broke. I wasted time, and now doth time waste me; For now hath time made me his numbering clock:

My thoughts are minutes; and with sighs they jar Their watches on unto mine eyes, the outward watch.

Whereto my finger, like a dial's point, Is pointing still, in cleansing them from tears. Now sir, the sound that tells what hour it is Are clamorous groans, which strike upon my heart.

Which is the bell: so sighs and tears and groans Show minutes, <u>time</u>s, and hours: but my <u>time</u> Runs posting on in Bolingbroke's proud joy,

Is a strange brooch in this all-hating world.

While I stand fooling here, his Jack o' the clock. This music mads me; let it sound no more; For though it have holp madmen to their wits, In me it seems it will make wise *men* mad. Yet blessing on his <u>heart</u> that gives it me! For 'tis a sign of **love**; and **love** to Richard

This is a very significant passage in which Richard III has turned from a King into a Man. Notice how Love and Time both feature prominently in the monologue with mentions of father and heart as well. From the point of view of the Leximancer map this scene is crucial and in fact indicates the primal scene in Shakespeare in which King turns into Man and has to deal with the lack of love for him and with time of his imprisonment when his thoughts go wild. Without Leximancer's analysis we would not be drawn particularly to this passage as being indicative of the primal scene for Shakespeare. But we can now imagine its importance being in the way the crucial points of the quaternary of Jung are overturned and transformed in the character of Richard III, which he attempts to deal with on a personal level in this scene.

Search for heart & God & father

The following words appeared in your search: god: 802 heart: 1075 father: 842

King Henry VI, Part iii

Act 1. Scene 4

YORK She-wolf of France, but worse than wolves of France,

Whose tongue more poisons than the adder's tooth!

How ill-beseeming is it in thy sex
To triumph, like an Amazonian trull,
Upon their woes whom fortune captivates!
But that thy face is, vizard-like, unchanging,
Made impudent with use of evil deeds,
I would assay, proud *queen*, to make thee blush.
To tell thee whence thou camest, of whom derived,

Were shame enough to shame thee, wert thou not shameless.

Thy father bears the type of King of Naples. Of both the Sicils and Jerusalem, Yet not so wealthy as an English yeoman. Hath that poor monarch taught thee to insult? It needs not, nor it boots thee not, proud queen. Unless the adage must be verified, That beggars mounted run their horse to death. 'Tis beauty that doth oft make women proud; But, God he knows, thy share thereof is small: 'Tis virtue that doth make them most admired; The contrary doth make thee wonder'd at: 'Tis government that makes them seem divine; The want thereof makes thee abominable: Thou art as opposite to every good As the Antipodes are unto us, Or as the south to the septentrion. O tiger's heart wrapt in a woman's hide! How couldst thou drain the life-blood of the child, To bid the father wipe his eyes withal, And yet be seen to bear a woman's face? Women are soft, mild, pitiful and flexible; Thou stern, obdurate, flinty, rough, remorseless. Bids't thou me rage? why, now thou hast thy wish:

Wouldst have me weep? why, now thou hast thy will:

For raging wind blows up incessant showers, And when the rage allays, the rain begins. These tears are my sweet Rutland's obsequies: And every drop cries vengeance for his *death*, 'Gainst thee, fell Clifford, and thee, false Frenchwoman.

When we move now to looking for the heart, god and father trio we are wondering what happens when these move into the Quaternary. Here the woman is seen to be a Beast. Woman is not even mentioned in our list of concepts only the Queen. Father the center of the map is number 13 and the Oueen is number 24. But there are words like life, blood, eyes, hand, and world that appear between the Queen and the Father. Woman is so outcast that she does not appear on the map as does man except in the idealized form of the Queen. We might say that there is an interval of some importance between the Father and the Queen in which many key concepts come into existence. We might want to study this interval in more detail looking for the terms within the text to see how they elucidate the articulation of this interval. Here we are only trying to illustrate how the Leximancer map might be used to elucidate the text. It draws our attention to things that we would not necessarily see as important which turn up in its inhuman contextual analysis of what is important within the text.

Act 2, Scene 5

Father Thou that so stoutly hast resisted me, Give me thy gold, if thou hast any gold: For I have bought it with an hundred blows. But let me see: is this our foeman's face? Ah, no, no, no, it is mine only <u>son!</u> Ah, boy, if any <u>life</u> be left in thee, Throw up thine eye! see, see what showers arise.

Blown with the windy tempest of my heart, Upon thy words, that kill mine eye and heart!
O, pity, God, this miserable age!
What stratagems, how fell, how butcherly, Erroneous, mutinous and unnatural, This deadly quarrel daily doth beget!
O boy, thy father gave thee life too soon, And hath bereft thee of thy life too late!

Here the relation between father and son becomes the key point. Son is item number 32 coming after the Queen. Son is directly between Father and time in the map. Queen is closer to King in the east of the map. Between Queen and Son is another interval, which includes prince, death, day/night opposites, and fair. The character of this interval is quite different from that between Father and Queen. Notice that here the passage seems to revolve around death. Life is in the interval between Father and Queen but

death is in the interval between Queen and son. This passage dwells on the presence of death in this new interval.

King Henry IV, Part I

Act 4, Scene 3

 $\begin{array}{cc} \text{HOTSPUR} & \text{The } \underline{\textbf{king}} \text{ is kind; and well we} \\ & \text{know the } \underline{\textbf{king}} \end{array}$

Knows at what **time** to promise, when to pay. My father and my uncle and myself Did give him that same royalty he wears; And when he was not six and twenty strong, Sick in the world's regard, wretched and low, A poor unminded outlaw sneaking home, My father gave him welcome to the shore; And when he heard him swear and vow to God He came but to be Duke of Lancaster, To sue his livery and beg his peace, With tears of innocency and terms of zeal, My father, in kind heart and pity moved, Swore him assistance and perform'd it too. Now when the lords and barons of the realm Perceived Northumberland did lean to him. The more and less came in with cap and knee: Met him in boroughs, cities, villages, Attended him on bridges, stood in lanes, Laid gifts before him, proffer'd him their oaths, Gave him their heirs, as pages follow'd him Even at the heels in golden multitudes. He presently, as *great*ness knows itself, Steps me a little higher than his vow Made to my father, while his blood was poor, Upon the naked shore at Ravenspurgh; And now, forsooth, takes on him to reform Some certain edicts and some strait decrees That lie too heavy on the commonwealth, Cries out upon abuses, seems to weep Over his country's wrongs; and by this face, This seeming brow of justice, did he win The **heart**s of all that he did angle for: Proceeded further; cut me off the heads Of all the favourites that the absent king In deputation left behind him here, When he was personal in the Irish war.

In this passage kind heartedness, which has been paid back with ill, is the key sentiment. The son is speaking of a vow made to his father by the one who has done them wrong in the absence of the king. Here we can see how the various concepts identified by Leximancer are woven together in the text. The passage is a nexus of these concepts, which are bound together in the text at this point. These sorts of

nexus or binding points should be something that we study based on the Leximancer map. They draw our attention to a feature of the text that we might not emphasize in our analysis of it because we are busy projecting our own net of concepts onto the text rather than being interested in what concepts appear by a bottom up analysis such as Leximancer provides.

King Henry IV, Part ii

bishop,

Act 4, Scene 2

LANCASTER You are well encounter'd here, my cousin Mowbray: Good day to you, gentle lord archbishop; And so to you, Lord Hastings, and to all. My Lord of York, it better show'd with you When that your flock, assembled by the bell, Encircled you to hear with reverence Your exposition on the holy text Than now to see you here an iron man, Cheering a rout of rebels with your drum, Turning the word to sword and life to death. That man that sits within a monarch's heart, And ripens in the sunshine of his favour, Would he abuse the countenance of the king, Alack, what mischiefs might he set abrooch In shadow of such greatness! With you, lord

It is even so. Who hath not heard it spoken How deep you were within the books of <u>God</u>? To us the <u>speaker</u> in his parliament; To us the imagined voice of <u>God</u> himself; The very opener and intelligencer Between the grace, the sanctities of heaven And our dull workings. O, who shall believe But you misuse the reverence of your place, Employ the countenance and grace of heaven, As a false favourite doth his prince's name, In deeds dishonourable? You have ta'en up, Under the counterfeited zeal of <u>God</u>, The subjects of his substitute, my <u>father</u>, And both against the peace of heaven and him Have here up-swarm'd them.

This is a similar passage to that of Wosley above except spoken of by another observing from outside. The priesthood is using God as a basis for political action. A theme for Blake was the collusion between the priesthood and tyranny. The relation between the King and the Priest is a complex one. So when we see this relation between the Father and God in relation to the heart we should know that this Father might be

either friar or father to the son. It is a double meaning of Father in the Christian tradition which accents the paradox of the father as the Name of that which is missing as Lacan says.

Act 4, Scene 5

PRINCE HENRY O, pardon me, my liege! but for my tears,

The moist impediments unto my speech,
I had forestall'd this dear and deep rebuke
Ere you with grief had spoke and I had heard
The course of it so far. There is your crown;
And He that wears the crown immortally

Long guard it yours! If I affect it more
Than as your honour and as your renown,
Let me no more from this obedience rise,
Which my most inward true and duteous spirit
Teacheth, this prostrate and exterior bending.
God witness with me, when I here came in,
And found no course of breath within your
majesty,

How cold it struck my heart! If I do feign,
O, let me in my present wildness die
And never live to show the incredulous world
The noble change that I have purposed!
Coming to look on you, thinking you dead,
And dead almost, my liege, to think you were,
I spake unto this crown as having sense,
And thus upbraided it: 'The care on thee
depending

Hath fed upon the body of my father;
Therefore, thou best of gold art worst of gold:
Other, less fine in carat, is more precious,
Preserving life in medicine potable;
But thou, most fine, most honour'd: most
renown'd,

Hast eat thy bearer up.' Thus, my most royal liege,

Accusing it, I put it on my head,
To try with it, as with an enemy
That had before my face murder'd my father,
The quarrel of a true inheritor.
But if it did infect my blood with joy,
Or swell my thoughts to any strain of pride;
If any rebel or vain spirit of mine
Did with the least affection of a welcome
Give entertainment to the might of it,
Let God for ever keep it from my head
And make me as the poorest vassal is
That doth with awe and terror kneel to it!

Here is the scene where the son speaks of the king father's death. So from this we can make sense of the presence of death in the interval between Queen and Son because the son waits for and dreads the father's death when he will

himself become king.

The Merchant of Venice

Act 2, Scene 2

LAUNCELOT Certainly my conscience will serve me to run from

this Jew my master. The fiend is at mine elbow and

tempts me saying to me 'Gobbo, Launcelot Gobbo, good

Launcelot,' or 'good Gobbo,' or good Launcelot Gobbo, use your legs, take the start, run away. My

conscience says 'No; take heed,' honest Launcelot;

take heed, honest Gobbo, or, as aforesaid, 'honest

Launcelot Gobbo; do not run; scorn running with thy

heels.' Well, the most courageous fiend bids me pack: 'Via!' says the fiend; 'away!' says the fiend; 'for the heavens, rouse up a brave mind,' says the fiend, 'and run.' Well, my conscience, hanging about the neck of my heart, says very wisely

to me 'My honest friend Launcelot, being an honest

<u>man</u>'s <u>son</u>,' or rather an honest woman's <u>son</u>; for.

indeed, my <u>father</u> did something smack, something

grow to, he had a kind of taste; well, my conscience

says 'Launcelot, budge not.' 'Budge,' says the fiend. 'Budge not,' says my conscience. 'Conscience,' say I, 'you counsel well;' ' Fiend,' say I, 'you counsel well:' to be ruled by my conscience, I should stay with the Jew my master,

who, **God** bless the mark, is a kind of devil; and, to

run away from the Jew, I should be ruled by the fiend, who, saving your reverence, is the devil himself. Certainly the Jew is the very devil incarnal; and, in my conscience, my conscience is

but a kind of hard conscience, to offer to counsel me to stay with the Jew. The fiend gives the more

friendly counsel: I will run, fiend; my heels are at your command; I will run.

This is a comedic rendition of the relation between conscious and master.

The Tempest

Act 1, Scene 2

MIRANDA If by your art, my dearest <u>father</u>, you have

Put the wild waters in this roar, allay them. The sky, it seems, would pour down stinking pitch,

But that the sea, mounting to the welkin's cheek, Dashes the fire out. O, I have suffered With those that I saw suffer: a brave vessel, Who had, no doubt, some noble creature in her, Dash'd all to pieces. O, the cry did knock Against my very Meart. Poor souls, they perish'd. Had I been any Meart. Poor souls, they perish'd. Have sunk the sea within the earth or ere It should the good ship so have swallow'd and The fraughting souls within her.

The father here is sinking a ship, which Miranda protests. God is a power to save the ship from the father's machinations.

Hamlet, Prince of Denmark

Act 1. Scene 2

HAMLET

O, that this too too solid flesh would melt Thaw and resolve itself into a dew!
Or that the Everlasting had not fix'd His canon 'gainst self-slaughter! O <u>God</u>! <u>God</u>! How weary, stale, flat and unprofitable, Seem to me all the uses of this <u>world</u>! Fie on't! ah fie! 'tis an unweeded garden, That grows to seed; things rank and gross in nature

Possess it merely. That it should come to this! But two months dead: nay, not so much, not

So excellent a king; that was, to this,
Hyperion to a satyr; so loving to my mother
That he might not beteem the winds of heaven
Visit her face too roughly. Heaven and earth!
Must I remember? why, she would hang on him,
As if increase of appetite had grown
By what it fed on: and yet, within a month-Let me not think on't--Frailty, thy name is
woman!--

A little month, or ere those shoes were old With which she follow'd my poor <u>father</u>'s body, Like Niobe, all tears:--why she, even she--O, <u>God!</u> a beast, that wants discourse of reason, Would have mourn'd *long*er--married with my uncle,

My <u>father</u>'s brother, but no more like my <u>father</u> Than I to Hercules: within a month: Ere yet the salt of most unrighteous tears

Had left the flushing in her galled eyes, She married. O, most wicked speed, to post With such dexterity to incestuous sheets! It is not nor it cannot come to good: But break, my heart; for I must hold my tongue.

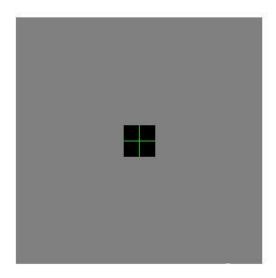
Here is a primal scene, which combines many of the key concepts. Hamlet makes his case against his mother and her new husband who is now King, replacing Hamlet's father.

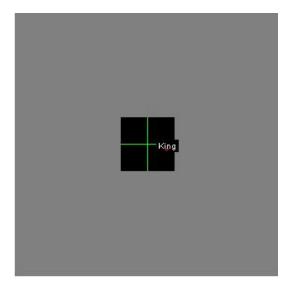
In general what we see by this method of searching and highlighting concepts from the Leximancer map is that the text bears out in part the centrality of the concepts it displays for us. It makes us look at parts of the text that we might not find as interesting and asks us to think about them in a new light, the light of objectively found concepts and their interrelations. We have seen that the sequence of concepts forms phases between key concepts and that we can extend past the central concept to understand the importance of the Queen and the Son and what lies between them and the Father in terms of other elemental concepts that we might not have associated with them left to our own devices.

This analysis could be extended to look further out into the conceptual network produced by the map. However, what is done here is merely an example of one why the map can be used as a tool for delving more deeply into the unconscious of the text by bringing together words and concepts that we might not have focused on otherwise and perhaps by that opening up new vistas for the interpretation of works from our literary tradition.

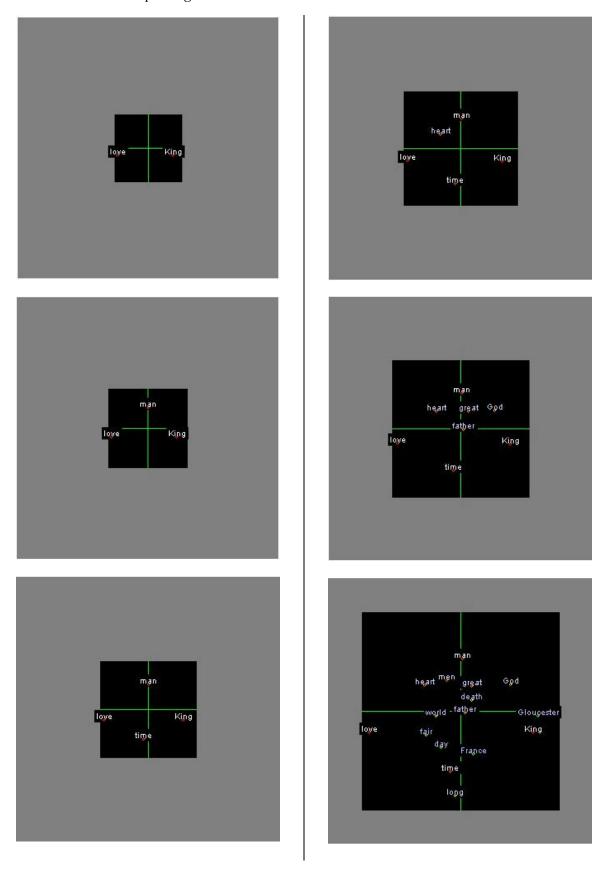
Appendix: Leximancer Screen Shots

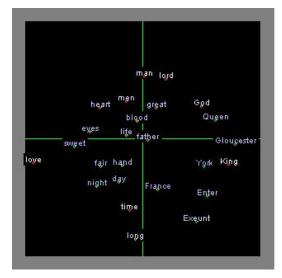
http://www.leximancer.com/gallery/s hakespeare/index.html Zooming Out

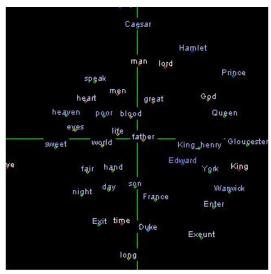


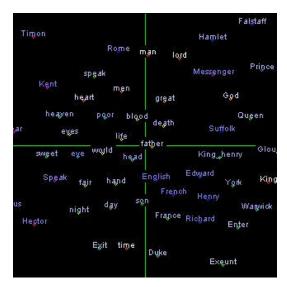


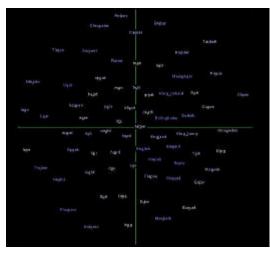
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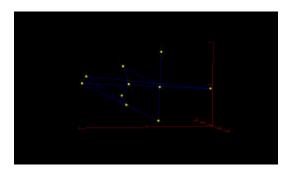




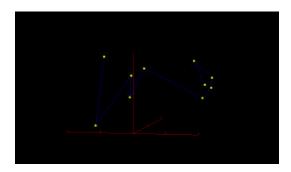
Appendix: Visualization Shots

Stereo 3D XYZ-Axes Graph Plotting Viewer Freeware - Revision v2.0.2 March 24, 2001

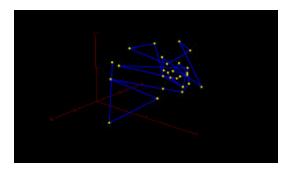
http://www.ziplink.net/~rhart2/3DGr
aph.html



You can see the right angles between the two staves of the Quaternion in this shot with the Father in the center. This series goes up to the Father node.

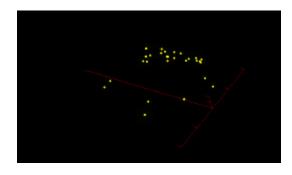


This is the same series from a different angle, which does not look as regular but shows the movement toward the forming attractor on the right.

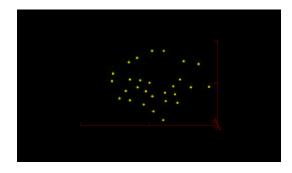


This series includes the Queen and Son and you can see the attractor beginning to

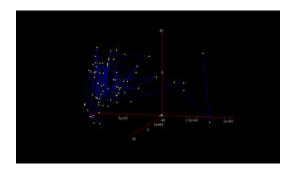
intensify.



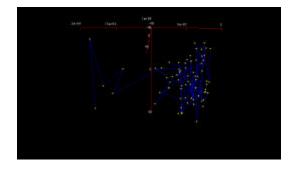
This is the same group without the lines.



This is the group looking straight on so that you see the map.

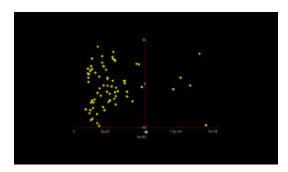


This is the entire map. You can see the attractor is becoming very well defined.

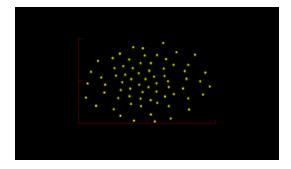


This is the same thing from a different angle.

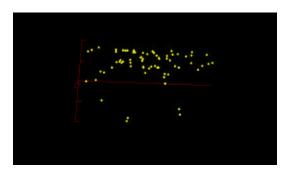
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This is the same group without the lines.



This looks at the whole group straight on so you can see the map.



This is the whole group from a different angle.