Identity, Communities, and Technology on the Cusp of Change (Full Issue)

IDENTITY, COMMUNITIES AND
TECHNOLOGY
ON THE CUSP OF CHANGE

2009 McNair Scholars Online Journal

The Ronald E. McNair Scholars Program at Portland State University (PSU) works with motivated and talented undergraduates who want to pursue PhDs. It introduces juniors and seniors who are first-generation and low-income, and/or members of under-represented groups to academic research and to effective strategies for getting into and graduating from PhD programs.

The McNair Scholars Program has academic-year activities and a full-time summer research internship. Scholars take academic and skills-building seminars and workshops during the year, and each scholar works closely with a faculty mentor on original research in the summer. Scholars present their research findings at the McNair Summer Symposium and at other conferences, and are encouraged to publish their papers in the McNair Journal and other scholarly publications.

The Ronald E. McNair Post-baccalaureate Achievement Program was established in 1986 by the U.S. Department of Education and named in honor of Challenger Space Shuttle astronaut Dr. Ronald E. McNair. The program, which is in its seventh year on campus, is funded by a $924,000 grant from the U.S. Department of Education and institutional cost-share funds.

The McNair Scholars Program's student-centered approach relies heavily on faculty and university commitment. Activities and opportunities provided by the program focus on building a positive academic community for the scholars while they are undergraduates at PSU.

Ronald E. McNair

Ronald Erwin McNair was born October 21, 1950 in Lake City, South Carolina. While in junior high school, Dr. McNair was inspired to work hard and persevere in his studies by his family and by a teacher who recognized his scientific potential and believed in him. Dr. McNair graduated as valedictorian from Carver High School in 1967. In 1971, he graduated magna cum laude and received a bachelor of science degree in Physics from North Carolina A&T State University (Greensboro). Dr. McNair then enrolled in the prestigious Massachusetts Institute of Technology. In 1976, at the age of 26, he earned his Ph.D. in laser physics. His dissertation was titled, "Energy Absorption and Vibrational Heating in Molecules Following Intense Laser Excitation." Dr. McNair was presented an honorary doctorate of Laws from North Carolina A&T State University in 1978, an honorary doctorate of Science from Morris College in 1980, and an honorary doctorate of science from the University of South Carolina in 1984.

While working as a staff physicist with Hughes Research Laboratory, Dr. McNair soon became a recognized expert in laser physics. His many distinctions include being a Presidential Scholar (1971-74), a Ford Foundation Fellow (1971-74), a National Fellowship Fund Fellow (1974-75), and a NATO Fellow (1975). He was also a sixth degree black belt in karate and an accomplished saxophonist. Because of his many accomplishments, he was selected by NASA for the space shuttle program in 1978. His first space shuttle mission launched successfully from Kennedy Space Center on February 3, 1984. Dr. Ronald E. McNair was the second African American to fly in space. Two years later he was selected to serve as mission specialist aboard the ill-fated U.S. Challenger space shuttle. He was killed instantly when the Challenger exploded one minute, thirteen seconds after it was launched. Dr. McNair was posthumously awarded the Congressional Space Medal of Honor. After his death in the Challenger Space Shuttle accident on January 28, 1986, members of Congress provided funding for the Ronald E. McNair Post-Baccalaureate Achievement Program. Their goal was to encourage low-income and first-generation college students, and students from historically underrepresented ethnic groups to expand their educational opportunities by enrolling in a Ph.D. program and ultimately pursue an academic career. This program is dedicated to the high standards of achievement inspired by Dr. McNair's life.

Source: mcnairscholars.com

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Duality and the Importance of Canadian Humour in <u>A Complicated Kindness</u>

MANDY L BARBERREE
MARIE LO, FACULTY MENTOR

"Every novel says to the reader: "things are not as simple as you think." That is the novel's eternal truth…" (Kundera 19).

In <u>A Complicated Kindness</u>, Miriam Toews takes readers into the secluded fictional Mennonite community of East Village, located on the prairies of Manitoba, Canada. For many readers, a Mennonite community is something that is seen from the outside. What remains in view are mere surface features, a presented face to the world. In the case of Toew's fictional town of East Village, this mask comes in the form of an antiquated, replica, tourist village that lies outside the town proper. The existence of this front turns the real and secluded East Village into "a town that exists in the world based on the idea of it not existing in the world" (48). "People come … from all over the world for a first-hand look at simple living," and what they see when they get there is not the real, but the ideal (11). Much of the book is built on layers of affecting metaphors, coupled with irony and humour, which serve to illuminate the dynamics of the real and ideal in this religious fundamentalist community. Toews' peels back the hidden layers of a symbiotic relationship between this real and ideal so that a reader can empathize instead of judge what may seem to outsiders a hypocritical contradictory existence for the people in this Mennonite town.

The fake town is the ideal version of how the outside world – and how the most powerful, fundamentalist and traditionalist Mennonites of the community – would like to believe the modern day inhabitants of this secluded town live. Even the American tourists who visit make note of this juxtaposition. It's a situation easily compared to the American tourist in search of the simple 'nice' Canada. But the reality – even in the winter wonderland of Canada - is never so simple. Sarah M. Corse speaks of the complication of the ideal and the real of Canadian identity when she writes that

"The very phrase "Canadian Nationalism" is misleading in that it subsumes a problematic series of concepts within a naturalized phrase that gives no indication of the turmoil right beneath the surface" (38). Canada's dual nature, its real turmoil that exists beneath its popularized ideals can be easily compared metaphorically to Toews' novel in reveling moments such as when "The Mouth [Nomi's Uncle] read Revelations by candlelight in the fake church while the people of the real town sat in a field of dirt cheering on collisions" (Toews 206). This is an example of modern contradictions that clearly exist in modern day Canada and in the fictional community of East Village. It also presents growing confusions for Nomi Nickel, the main protagonist in the novel. The contrast of the loud, intense cheering of violent collisions to the outward calm and quiet of a candle-lit prayer session is one early illusion, an ironic juxtaposition, to the 'turmoil right below the surface' of this particular community.

Many reviewers of Toew's novel see only as far as the duplicity of the fake village versus the real one. One reviewer described it only as far as "a strict Mennonite community … economically bankrupt and intellectually oppressive" that was "like waking up in a crazy bible camp…" (Miriam). On the surface, Nomi quips about her community when she remembers her sister Tash. "We're a national joke, she'd say. Seriously, she'd say, we're the joke town in the joke province in the joke country" (71); but the use of irony in the text takes this adolescent humorous look at East Village and Canada to deeper levels of duality– duality being that double nature of the real existing together with the ideal.

This sardonic tone persists in Nomi's early introductions of the town and its relationship to its religion. She tells us that "People here just can't wait to die, it seems. It's the main event. The only reason we're not all snuffed at birth is because that would reduce our suffering by a lifetime" (5). She refers to Mennonites as "the most embarrassing sub-sect of people to belong to if you're a

teenager" (5). Here, the strict fundamentalism of this community with its patriarchy and

excommunication is seemingly reduced to a teenager's embarrassment about being 'un-cool'. But it's

cutting comments such as these that take the harsh reality of East Village down a notch and make it

something that we can laugh at, and along with Nomi, instead of judge. At the same time, her

humour alludes to the 'suffering' and emotional deaths that people seem to be quietly advancing

towards in their private inner lives. Nomi's witticisms about her community serve as a survival

mechanism for coping with and, at the same time, revealing the duality of her world.

I argue that a closer look at Toews' use of irony and humour in creating empathy allows the

reader to see East Village as a metaphor and an addition to the larger discourse on Canada and

nationalism. The novel's blanketing of dark dualistic humour fits together with East Village's

dichotomy to create a dialog comparable to the continuing, evolving and permanent dialogs which

exist concerning Canada's national identity. This is possible when we see both East Village and

Canada as forms of what Benedict Anderson refers to as "imagined communities" of connected

sociological groups of people. As a Canadian novel, the double nature of Nomi's community lends

itself easily for viewing as a hyperbolic metaphor – a distilled and concentrated form - for the

community of Canada and its realistic identity issues which exist below its surface

apparent/popularized ideals.

Humour undoubtedly has a prominent place in Canadian literature. And as a previous

winner of the Stephen Leacock Memorial Medal for Humour for her novel <u>The Summer of My</u>

<u>Amazing Luck</u> Toews is no stranger and amateur when it comes to employing it here. Humour fits

particularly well into this Canadian landscape and its dualistic identity because, as critic R.E.Watters

puts it,

there is a kind of humor that combines full understanding of the contending forces

with a wry recognition of one's ineffectiveness in controlling them – a humor in

which one sees himself as others see him but without any admission that this outer

man is a truer portrait that the inner – A humour based on the incongruity between

the real and the ideal, in which the ideal is repeatedly thwarted by the real but never

quite annihilated. Such humour is Canadian. (543)

Watters points out that Canadian humour acknowledges the fact that humans – whether as

individuals or as imagined communities – recognizes that one can see themselves within the

idealistic image that outsiders observe and at the same time accept their often contradictory inner

realistic nature, realizing that there is no need or possibility in settling on one of the two halves of

the whole. Both parts are real and valid – even though they contradict. Canadian humour

acknowledges this and plays with it. Gerald Noonan adds to this that "The basis of Canadian

humour rests squarely upon that full understanding of contending forces" (915).

Lister Sinclair has said that the "Canadian method of making our small voice heard is the use

of irony, "the jiu-jitsu of literature…" (543). Toews carefully weaves the duality of irony into her

imagery, "this particular manner of saying two things at once, of pretending to speak a dominant

'language' while subverting it at the same time" (Hutcheon vii). And as Hutcheon also goes onto

explain, the double nature of ironic meanings and literal meanings together "disrupts any notions of

meaning as single, stable, decidable, complete, closed, innocent, or transparent." This transforms the

sad yet humorous metaphoric symbols, which Toews uses, into reflections of the true complexity of

the contradictions that eternally co-exist in the real world. The double nature of irony makes it an

apt tool for illustrating the complexity of a dualistic community. Noonan writes about the

importance that duality, through humour, adds to a text when he writes that "Duality makes possible

a different angle of perception, even of stereotypes" (913). This makes ironic humour especially

helpful as a way of creating empathy for a somewhat separated religious community. Noonan also

points out that this type of humour, one that presents "…a duality of mind, not one-mindedness"

(917) is a much more useful literary tool in a pluralistic world.

While Toews' use of humour draws the reader in from the outside and enables them to

relate to East Village, the dark humour that she employs is, by these standards, very Canadian in the

way that it acknowledges the duality of this community; East Village is therefore easily transposed to

the wider conversation of the ideal and the real within the imagined community of the nation of

Canada. Yet, without humour, this bridge to a broader comparison would be impossible. Without it,

Toews would be showing us a much darker and hypocritical vision of this community. Humour

makes the dichotomy in East Village a more human struggle, one in which judgmental attitudes

towards what may be previously conceived as simple contradictions are set aside for an

understanding of the interwoven nature of the popular ideals of a community and its everyday

struggles.

There are a number of ways, symbolic coupled with humour, in which Toews establishes the

hidden angst of the community of East Village and reveals the community's dual nature as a main

source of tension in the novel. Some of the text's strongest examples illustrate a unified theme of

literature's ability to reveal to us the turmoil of the real below the surface of the ideal. They add

layers of complexity to the text and form the heart of its conflict.

Using game playing as a metaphor, Nomi gives us a quick snapshot of hidden strife when

she describes some of the few games that she, her friends, and other Mennonites are permitted to

play.

we would play this game called *Knipsbrat* with each other until our middle fingers

were sore. It was one of the few games we were allowed to play. Golf was another

one because it consisted of using a rod to hit something much, much smaller than

yourself and a lot of men in this town enjoyed that sort of thing. (39)

Games are an ideal and traditional way for people to have fun and spend time together.

What could seem less threatening than a children's card game or a slow game of golf? But here we

see them used as a window - with ironic humour - into the hidden oppression that exists in this

community. The children who watch the cars colliding while tourists listen to fake sermons are the

ones secretly 'giving the finger' to the rules of their community in the limited outlet of a game of

Knipsbrat, and they do it until their "middle fingers are sore" from it.

A game of golf is fun here not only because it is one of the few games allowed but because

it satisfies in its players the underlying desire to "hit something much, much smaller than yourself."

This is a dark comment on patriarchal domestic abuse and alludes to the fragmentation and

unhappiness of a community within the context of games - whose ultimate purpose is to achieve the

opposite effect upon its players than Toews' irony connotes here.

Toews writes that "stories are what matter." This is often because they reveal to us the

hidden layers of life through the secrets they tell – again, the turmoil beneath the surface. (Toews

245) And another way in which A Complicated Kindness shows us that stories illuminate the world

and its hidden turmoil is in a moment where Nomi remembers that "In the morning I watched dust

enter my room through a crack in my blind. No, I heard my sister saying, that dust has always been

there. It's the sunlight that illuminates it" (127). Here we can see story as the sunlight whose

illumination allows us to perceive the ever present but previously hidden realities – the dust - that

Nomi is slowly coming to comprehend. We see that the hidden turmoil in this Mennonite

community has always been present. And in the next paragraph, Nomi and her father debate and renounce the purchase of Lemon Pledge. The noticeable dust of hidden unhappiness that has now been illuminated, they no longer feel the need to clean away. "Some pledge," says Ray, in a pun on the dusting product that swears to keep dust at bay, hidden from sight. This pun plays to the end of his and Nomi's naivety, to their family life that existed before Nomi's sister and mother left them both.

Just like the dark ulterior satisfaction obtained from a game of golf, the invisible dust that is laid bare as we are given the pieces of Nomi's story is revealed in the pun on the word 'pledge.' This pun makes light of a broken pledge between man and wife, sisters, and the bond of family. This is because one half of the Nickel family has abandoned the other. The dust that was kept hidden is now illuminated by story and to remain on display. Ray and Nomi give up the act of dusting just as Trudie (Nomi's mother) and Tash (Nomi's sister) have given up the pledges that come along with family – the pledges that maintain the ideal of a family and keep the hidden dust and the turmoil of discontent concealed from sight. And the immense sadness of the moment is both explained and illumined with a pun.

Another way in which Toews describes a life of hidden strain, is by using the recurring symbolic metaphor of the silence of death and blood loss. In an early introduction to her world, Nomi ruminates that…

This town is so severe. And silent. It makes me crazy, the silence. I wonder if a person can die from it. There's an invisible force that exerts a steady pressure on our words like a hand to an open, spurting wound. The town office building has a giant filing cabinet full of death certificates that say choked to death on his own anger or suffocated from unexpressed feelings of unhappiness. *Silentium.* (4)

Here is the pressure of blood running silent and unheard beneath the outer surface of the human who stands as a dualistic identity. This quiet strain is an example of the tumultuous real underneath the surface ideal which we can view beyond the individual, to that of a community. The rushing pressure is ready to explode through the wounds of doubt and conflict within the hearts of the characters. Sorrow is suppressed and waiting to explode here in the form of abandonment, excommunication, and quiet rebellion. The humour here is also in the play on words of people not having choked on their dinner, or suffocated from a lack of oxygen, but by the metaphorical death from the emotional incongruity of their lives; it is this juxtaposition of the physical ways that people die to the emotional ways that can kill a person slowly. This strange dark humour allows a reader to relate to the power of the subterranean silence in East Village. So much of the tension in <u>A Complicated Kindness</u> is hidden like active blood under the pressure of silence; but it bursts to the surface through simple, personal, diary-style flashbacks that Toews presents through the awakening adolescent mind of Nomi.

In another use of the symbol of blood loss, Nomi describes her and her father Ray:

> He lifted his hand and put it on mine and we held our two hands there
>
> together on the side of his head near his ear, as though we were attempting
>
> to prevent blood loss while waiting for an ambulance to arrive. (28)

Even here, Nomi and Ray prevent the letting of silent emotional pain which is a quiet wound that also leads to its own kind of death; but the physical absurdity of the two of them placing their hands on Ray's head, in a stoic pose, lends a sad humour to the scene and dulls the edge of its gravity and melancholy, while at the same time illuminating the sadness for the reader to see. This pose seems odd and comforting, yet it alludes to a hopeless and inevitable ebbing away of the emotional life force of these two ever more lonely and polarized characters. Just as revealed dust and

the additional reasons men enjoy golf do, this silent blood loss shows the hidden forcese below the surface, under pressure and ready to burst forth from hidden emotional wounds.

Nomi also shows the reader many scenes in the story where characters are quite often doing things under the cover of night. East Village's citizens, in their own personal ways, are subtly dissenting and making compromises with their commonly assumed ideals. Nomi tells us that "…that's the thing in this town – there's no room for in between. You're in or you're out. You're good or you're bad. Actually, very good or very bad. Or very good at being very bad without being detected" (10). These undetected activities are something that nearly all characters partake in and Toews adds to these moments by placing them under the cover of darkness. This adds absurdity and dualistic irony to some of these scenes, which creates humorous revelations regarding the undercurrent of the tension that keeps the characters sleepless. This symbol's dual purpose is much like the dust unconquered by Pledge and the blood which courses silently through veins. Story reveals the silent unseen - the other half of the whole. Trudie shelves books in the library – in the middle of the night. Ray drives across the border to get coffee, sits in a lawn chair watching the highway, goes to the dump to organize and clean it up, or slowly sells off the family furniture – all under the blanket of nightfall. Even Nomi's strict uncle 'the Mouth' is spied in a midnight raid to the fridge for an uncharacteristically indulgent helping of ice cream. And it all happens under the cover of night

Nomi stays out all night most nights, traveling around the outskirts of town with her boyfriend Travis. On one particular evening escapade, they paint a goat barn red and wash the paint off their naked bodies with a nighttime swim. This particular event offers up a picturesque metaphor for the hours of darkness and its hidden sins against their communal religion. Travis and Nomi "floated around in the gassy rainbows for hours talking about stuff and lighting the gas…so it was

like we were in hell. Rainbow pools of fire in the pits, the smell of smoking stubble, the hot wind, dying chickens, the night, my childhood" (200). Toews uncovers these nocturnal activities, these hidden forays away from the public/daytime identities of these characters by bringing them to light through Nomi's story.

This night swim is an ironic play on biblical imagery – so central to this religious community's bonds and the very causes of its tensions and paradox. Travis and Nomi's skinny dipping in described in terms of the fires of hell. The irony here is that the sexual and mental awakenings of Nomi, and her birth into adulthood, are also an encroaching death in regards to her dying relationship to her community as her real feelings and actions collide with the ideals of her Mennonite upbringing. Again, Toews uses oddball scenes to reveal, like sunlight on dust, hidden pleasures in golf, and blood under pressure, that there is turmoil beneath the surface of the daylight image of East Village.

And finally, another prominent way in which Toews employs a symbolic metaphor of duality is when Nomi finds "a note blowing around in a field that had been torn in half right down the middle" (98). Things unsaid - another form of silence like night or silent running blood - are a prominent reoccurring dynamic of this text and a particular contributing dysfunction of this imagined community and its duality. The humour here provides an empathetic context to the symbolic 'unsaid' as Nomi reads the only half of the note she can find. The results are nonsensical and amusing. While the half thoughts in the note can be seen as alluding to sexual awakenings and a self consciousness, they also serve to balance out the serious reflection that the incomplete note triggers in regards to confusion that Nomi feels about her life in East Village in general.

It said: I'm sittin in I want to get drunk but I have no flo'? kid here at S.H.

that name's Andrew. I ugly but the pint are bitching that guys. So one day

you with sexy, of ha ha. Well shit face, me and Sherise ways I guess I'm just

my sister for a while if you forgot my pants hope you won't ght you should

ditch you could do so much She always a bitch, you don't do what erv,

walking around She's gonna trap your thing!! I'm just biz, I'm your gurl

here or not. I'll always playboy. Your gurl! (98)

Nomi reflects upon reading the only words that are available on the half of the note she has found that "I knew exactly what your gurl was talking about because I also only ever said half of what I meant and only half of that made sense" (98). By revealing the inner world of Nomi and the town of East Village – beyond the tourist attraction and religious fundamentalism –Toews gives us the missing half of the note. She is showing us the words that aren't said, the ones not written down on paper but the ones that are needed to complete the whole. The missing half of the note is the turmoil of a real world that always exists underneath whatever ideal identity is offered up for others to see. Once an author gives us enough of a character – just as Toews does with Nomi – it is possible to picture the complete note. When the opportunity is given here to imagine entirety – both the outer image and the hidden one – then we are able to comprehend the complexity of the whole – what is visible about a person or community, and what is not. .

All of the characters in A Complicated Kindness grapple with the duality of East Village – a romanticized ideal alongside their modern and complicated reality. Yet both halves of this whole community must exist – the ideal right along with the real. Without both together, there is no whole. Seeing the hidden dust, the real motivations of players, the power of silent invisible blood, anxieties hidden by night, and the existence of unsaid thoughts are all ways of completing the entire, natural, dual picture of a complete person or a community. It is necessary to see the whole. Nomi reflects upon the importance of this when she says,

The things we don't know about a person are the things that make them human,

and it made me feel sad to think that, but sad in that reassuring way that some

sadness has, a sadness that says welcome home in twelve different languages.

(98)

This sadness permeates the text, and after taking a look at the gravity of these five

metaphors one can see how they illuminate the novel's double leveled identity and create the heart

of its tension. But also more obvious than ever is the fact that without the layer of black, somewhat

self depreciating and ironic humour - a characteristically Canadian sense of humour - the text might

be trapped in the disassociating oppression seen where the novel's reviewers leave off.

Just as religious texts join together religious communities, the written word and the

simultaneity of people reading common literature is a very unifying and defining force in the

founding of, and continual growth of nations as unique and independent forces in the world. We

can see any imagined community as "the idea of a sociological organism moving calendrically

through homogeneous, empty time…conceived as a solid community moving steadily down (or up)

history" (Anderson 26). East Village is a community imagined into existence. Its controlled,

popularized and outwardly common ideals are unchanging…living in "empty time." It even exists as

part of a larger world-wide community of Mennonites, imagined together by the followers of Menno

Simmons and the commonality of their interpretations of the Bible. In Anderson's words, East

Village can also be compared to a community that is "*imagined* because the members of even the

smallest nation will never know most of their fellow-members, meet them, or even hear of them, yet

in the minds of each lives the image of their communion" (6). This commonality through their

shared values, their particular interpretation of the written word of the Bible (and even their kinship

with a worldwide Mennonite community) can be seen in parallel to the 'imagined community' of

Canada which is devised from by a supposed public majority with a set of perceived common goals,

ideals… and *readership*. After all, national identity is perpetuated and evolutionary partly in response

to the national literature that exists within it. Corse notes that "The naming and development of a

national literature is one process by which disparate populations can be symbolically "woven" into

one."

If we identify East Village as a possible parallel example to Canada, we can perceive the five

metaphors above as not only illuminating the turmoil of this fictional Mennonite community, but as

examples of how novels can work on both a personal and national level to contribute to existing

arguments and add to our understanding of issues surrounding identity. And we can perceive A

Complicated Kindness as an addition to the fabric that weaves Canada together and helps it

continue to build an understanding of its sense of self, and to grow. As Redkop points out, "…if a

nation has a vital literary tradition, the national literature is like a conversation in progress, not like a

fixed and static monument" (263).

Considering identity and the novel, Milan Kundera writes that "All novels, of every age, are

concerned with the enigma of the self" (23). We can see this in not only the coming of age

confusion of Nomi Nickels, but in the conflicts of the community of East Village as it attempts a

balance act between the modern real world and its religious ideals. And concerning literature and its

place in adding to the dialog and formation of a national identity, Anderson writes that "the

imagined world is visibly rooted in everyday life. …fiction seeps quietly and continuously into reality,

creating that remarkable confidence of community in anonymity which is the hallmark of modern

nations" (35). And Toews text is one which seeps into the reality of wider discussions on identity,

therefore affecting our everyday life. Corse states plainly that "National literatures are both the

product and partial creator of the nation and our collective sense of national identity. National

literatures are not passive reflections of naturally occurring phenomena, but integral components in the process of national development." (9)

Near the conclusion of <u>A Complicated Kindness</u>, Nomi asks: "Is it wrong to trust in a beautiful lie if it helps you get through life" (246). The ideals that individuals, communities hold onto exist alongside the everyday realities of an increasingly pluralistic world. But where would imagined communities be if the contradictions between their ideals and realities were simplified, reduced and judged to the dismissible level of mere hypocrisy? Ideals cannot be discarded even though they are never a true representation of what a community is. This is because there exists the inherent human desire to continually strive to improve and progress. The struggle to maintain popular ideals and the communal identities they form are forever examined and held up in order to both maintain the very existing form of an imagined community and to perpetuate its forward momentum. Corse writes that "…nations themselves are both products of human invention and tools in support of further invention" (Corse 8). Even when there is disagreement regarding ideals, which only some of a population might consider communal, the dialog and the culture that grows from these disagreements serves the same purpose of commonality through methods of shared discourse such as newspapers, art and national literature.

"Reading is a solitary activity, but an activity that can powerfully unite solitary readers in imagined communities" (Corse 23). Miriam Toews gives us a solitary task in the reading of her novel that offers unity through the simultaneity that a well written novel can achieve. Using ironic humour and its common theme of the duality of identity, and the quest to understand the "enigma of self," adds to the appeal of Toews' text. Without humour, the multilevel identity and complex tension that Toews shows us would remain foreign and hostile. Humour disarms the harshness of East Village

and unites the reader with its citizens through laughter; particularly with Nomi who may in the end choose to remain as one of the town's ghosts.

Humour disassembles judgment through empathy. The importance of the ability to empathize with the hidden turmoil of East Village does not mean that we should be dismissive of the oppressive things that happen in communities – imagined or not. Even when hidden turmoil exists under the surface of a community, its conflicting senses of real vs. the ideal should not be perceived as hypocritical. To judge something as hypocritical is to be able to disregard it. Empathy helps us to accept, and view with open-minded consideration, the symbiotic nature of a community's complexities.

The conflicts that exist within East Village and in the nation of Canada which we can reflect upon when reading A Complicated Kindness are *not* those of the real *vs.* the ideal. They consist of the real *and* the ideal, together as one complex whole. Nomi knows this. Throughout the novel she ridicules East Village, but in the end even she comprehends the complicated nature of her world. We can very well imagine her staying because we have been made to understand her need for this community – regardless of its conflicting realities.

Works Cited

Anderson, Benedict. Imagined Communities: Reflections on the Origin and Spread of Nationalism,

      New Edition. New York: Verso, 2006.

Corse, Sarah M.. Nationalism and Literature: The Politics of Culture in Canada and the United

      States (Cambridge Cultural Social Studies). New York: Cambridge University Press, 1996.

Hutcheon, Linda. Splitting Images: Contemporary Canadian Ironies. Don Mills, Ont., Oxford

      University Press, 1991

Noonan, Gerald . "Canadian Duality and the Colonization of Humour." <u>Canadian Literature and</u>

      <u>Rhetoric</u> 50.8 (1988): 912-919

Redekop, Magdalene."Canadian Literacy criticism and the idea of a national literature." <u>Cambridge</u>

      <u>Companion to Canadian Literature.</u> ed.Eva-Marie Kroller. Cambridge, Cabridge University

      Press, 2004

Toews, Miriam. <u>A Complicated Kindness</u>. Boston: Faber and Faber, 2005.

"Miriam Toews Bio"Literature Resource Center. 7/7/2006,http://galenet.galegroup.com/
      servlet/LitRC?vrsn=3&OP=contains&locID=oregon_portland&srchtp=athr&ca=1
      &c=1&ste=6&tab=1&tbst=arp&ai=U15010499&n=10&docNum=H1000162001&ST=To
      ews%2C+Miriam&bConts=2191

Watters, R.E. "Stephen Leacock's Canadian Humour." Klinck, Carl F. and Watters,

      Reginald E. Eds. <u>Canadian Anthology</u>. Revised Edition. Toronto, W.J.Gage

      Limited, 1966

Victor-Lévy Beaulieu and Québec's Linguistic and Cultural Identity Struggle

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Six months ago, the latest literary work from Québécois author Victor-Lévy Beaulieu came off the presses. Known by his fans as simply VLB, Beaulieu is considered to be among the greatest contemporary Québec writers,[1] and this most recent work, *La Grande tribu*, marks his seventieth. He directly threw it into a wood stove. Beaulieu's book-burning followed a comment made by current *Parti Québécois* leader, Pauline Marois, who suggested that the teaching of English be added to Québec's elementary school curriculum. Beaulieu then threatened to burn the entire body of his works if nothing were done to curb the surge of bilingualism in Québec.[2]

Since the appearance of his first novel, *Mémoires d'outre-tonneau*[3] in 1968, VLB has written more than twenty-five novels as well as works for television, radio, journals, newspapers and the stage. Labeled "une institution" (166) by Québécois historian Laurent Mailhot, VLB has played a vital role in the nationalist and separatist movements of Québec which arose out of *La Révolution tranquille*[4] [The Quiet Revolution]. He has been a loud, even militant voice in Québec's sovereignty movement over the last forty years and has said that for him, it is "impossible de séparer son oeuvre

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[1] See Don Macpherson's February 28, 2008 editorial, "Book-burning shows Marois is in Trouble Quote of the Day."

[2] See Noah Richler's article, "VLB wants to knock my teeth out," based on his interview with Beaulieu.

[3] In the *Dictionary of Literary Biography, Volume 53: Canadian Writers Since 1960, First Series,* Eva-Marie Kröller notes that Beaulieu disowns this novel. This is interesting, considering the many similarities, both in plot and characters, between it and his most recent, *La Grand tribu*. I was unable to find any further information on this topic at the time this paper was written.

[4] The Quiet Revolution marks a time of great and rapid change in Québec's history. It will be discussed in much further detail later on in this paper.

du sort du Québec" (Laurin, 2) [impossible to separate his work from the destiny of Québec].[5] In a

recent edition of *La Presse*, journalist Chantal Guay paraphrases Beaulieu's current separatist

sentiments in light of Marois's pronouncement: "Il estime qu'il n'y a plus de parti indépendantiste et

que si le Québec devient un district bilingue, ce sera la disparition de la nation québécoise

francophone" (qtd. in Serge-André Guay 1) [He feels that there is no longer a sovereignist party, and

that if Québec becomes a bilingual district, the Québécois francophone nation will disappear].

Currently, there is much cultural debate over Beaulieu's seemingly extreme, symbolic

ultimatum. Many would agree that VLB's political demonstration reflects the sentiments of a

significant number of Québécois, still concerned with the dilution of their language, the assimilation

of their culture, and their struggle to become a sovereign nation. Radio-Canada editor Danielle

Laurin insists that VLB is "un homme résolu à sortir son peuple de la schizophrénie collective (2) [a

man resolved to lifting his people out of a collective schizophrenia], and that while it is true that he

is "obsédé de ses racines [. . .] il fouille le passé, pour mieux éclairer le present, et regarder vers

l'avenir" (ibid) [obsessed with his roots, he delves into the past, in order to shed light on the present,

and look toward the future]. There are others, however, who believe VLB's politics to be outmoded,

that the author, as Don MacPherson put it in his February 28, 2008 editorial page in Montreal's *The

Gazette*, is one of those "intolerant, old-line nationalists who have fallen out of touch with

Québecers'[6] concerns."

In order to understand what these concerns are (for they are certainly various and divergent),

and why it is exactly that Beaulieu has burned a work he spent thirty-five years writing, it is

important to be familiar with Québec's past. This past reveals a tumultuous, two-hundred-and-fifty-

year history of two colonial powers within one territory living in a state of linguistic duality. This

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[5] All translations in this work are mine unless they are titles, or are otherwise noted.
[6] "Quebecer" is the Anglicized word for "Québécois." As a matter of personal choice, I employ
the French word throughout this paper.

history will provide a context for Beaulieu's work; in turn, through an analysis of Beaulieu's first and

most recent novels, we may gain a better understanding of the evolution of Québec's unique

linguistic and cultural identity struggle and insight into the province's future.

It was in 1532 that French explorer Jacques Cartier sailed up the Saint Lawrence River and

claimed what is now Canada for the French. Attempts to settle the territory now called Québec[7]

began in earnest around 1608. For over one hundred and fifty years, French settlers calling

themselves *les Canadiens* inhabited this territory, along with various sedentary and nomadic aboriginal

peoples. Then, in 1759, the British conquered the French colony of New France during the Seven

Years' War. The Treaty of Paris ceded this colony to them four years later, and the Province of

Québec was formed.

Not thirty years after its formation, the province of Québec was divided into the primarily

British Upper Canada and French-dominated Lower Canada. This partition, facilitated through the

British Act of 1791, created a border that would presumably "separate the two societies and prevent

ethnic conflict" (qtd. in Levine 26).[8] Ethnic conflict between the two provinces persisted, however.

British business merchants still controlled Lower Canada's unelected executive and legislative

councils. Complex tensions caused by administrative incompetence, political favoritism and

manipulations, economic disenfranchisement and linguistic turmoil all reached a pitch. In 1833,

during his notable address to the *Chambre d'assemblée de Québec, Parti patriote* leader, Joseph Papineau,

said of the situation in Lower Canada:

Pour moi, ce que je désire, c'est un gouvernement composé d'amis des lois, de la

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[7]The name comes from the Algonquin, or North American aboriginal, word meaning "a narrow
passage or strait" (Monroe 1).
[8] In *The Reconquest of Montreal*, Mark Levine explains that British immigrants and English-
speaking loyalists (Americans) "had little interest in even […] mild cultural pluralism [...], and
clamored for an entirely English-speaking socio-political environment. The British authorities
responded, in 1791, by dividing Canada into two provinces: Upper Canada (homogeneously
British and Protestant) and Lower Canada (predominantly French and Catholic)" (26).

liberté, de la justice, d'hommes qui protègent indistinctement tous les citoyens, qui leur

accordent à tous les mêmes privilèges. J'aime et j'estime les hommes sans   distinction

d'origine, mais je hais ceux qui, descendants altiers des conquérants, viennent dans notre

pays nous contester nos droits politiques et religieux. (qtd. in *La Grande tribu,* Beaulieu 580)

[As for myself, what I desire is a government composed of friends of law, of liberty, of

justice, of men who indiscriminately protect all citizens, who accord them all the same

privileges. I care for men, and hold them in esteem without   making distinctions because of

their origins, but I despise those who, haughty descendants of conquerors, come in our

country and challenge our political and religious rights.]

The assembly rejected outright Papineau and the *Parti patriote*'s demands for economic

equality and just political representation.[9] Thus, in 1837, Papineau lead the French-Canadians in

both a boycott against all British imports and in an armed, unsuccessful rebellion known as the

Rebellion of 1837. As a result of these actions, the British declared Martial Law, and offered a

reward for the arrest of Papineau. The Rebellion of 1837 was shortly followed by another, also

unsuccessful, in 1838.

In response to these rebellions, the British Empire sent one of their high-ranking civil

servants, Lord Durham, "to examine the reasons for the conflict and to propose some solution to it"

(Warren 67). In what was a surprising conclusion, Durham remarked, "I expected to find a contest

between a government and a people: I found two nations warring in the bosom of a single state: I

found a struggle, not of principles, but of races,… two races, so long habituated to regard each other

with hereditary enmity, and so differing in habits, language, and in laws" (qtd. in Warren 67). His

report recommended that Britain begin to "marginalize the French group with massive English

immigration" (Warren 69) and commence "the process of assimilation to English habits" (qtd. in

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[9] Papineau outlined his demands in an exhaustive list known as "Les 92 Résolutions."

Levine 28). In 1840, following the recommendations of Lord Durham's report, the British

proclaimed the Act of the Union. This act abolished the legislatures of both Upper and Lower

Canada and English became the Legislature's sole official language of record; the use of French was

prohibited.

The French language proscription in the newly merged Province of Canada was

unsuccessful, however. The French-Canadians still represented a majority of the population. It was

only nine years later that all official restriction on the use of French were lifted.

In the 1860s, delegates from the Britain colonies of North America[10] came together to

discuss the formation of a new confederation. Seven years later, the British North American Act

brought together most of these provinces. The Province of Canada was divided as it had previously

been, into what were the former Upper and Lower Canadas, and which became, respectively, the

Provinces of Ontario and Québec.

While French-Canadians gained several rights between 1849 and 1960, including the ability

to run the provincial political system that protected French-Canadian religious, educational and legal

institutions, visible disparities between the two cultures remained. Anglophones continued to

dominate Québec's economy, and there was an understanding, "codified to some extent in 1876 by

the BNA Act, that the status of the English language in public life and the autonomy of the

Anglophone institutions were untouchable" (Levine 30). For one hundred years, with

Francophones refusing to assimilate, and Anglophones holding onto the top rung of the linguistic

hierarchy, little changed concerning language policy in Québec. Then suddenly, in the 1960s,

Montréal began to witness a "Francophone cultural renaissance" (Levine 43). "The number of

Francophones living in metropolitan Montréal doubled between 1931 and 1961, reaching 40 percent

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[10] These included Canada, Newfoundland, Nova Scotia, Prince Edward Island and New
Brunswick.

of Quebec's French-speaking population" (ibid). This surge of urban growth sparked a dramatic change in Québec's linguistic and cultural climate, giving birth to a nationalist spirit that would affect all of Canada. This cultural burgeoning is known as the *La Révolution tranquille* [The Quiet Revolution].

On July 22, 1960, Jean Lesage took the seat as Premier of Québec, under the famous *Parti libéral* slogan, "Maîtres chez nous" [Masters in our own house], the slogan that expressed the will of the Québécois to "reprendre possession de leur économie et de controller leur destin politique" (Nardocchio 343) [take back possession of their economy and to control their political destiny]. The period of history that marks The Quiet Revolution corresponds to Lesage's term of office, from 1960-1966.

The decline of Montréal as Canada's economic center marks only one of several phenomena characterizing The Quiet Revolution. In 1959, the opening of the Saint Lawrence Seaway allowed ocean-going vessels to "by-pass the Port of Montréal, reducing the city's status as Canada's transportation hub" (Levine 42), but even before this American corporations had begun to set up Canadian headquarters in Toronto, due to "the economic development of the western provinces and America's Midwestern industrial belt" [ibid]. Due to this economic restructuring, an important support to Anglophone power in Montréal was removed. As Québec watched its Anglophone financial elites invest outside of the province, French-Canadians began to question the English-speaking community's role in managing Québec's economy. The most unprecedented blow to the Anglophones' economic stronghold, though, came with the nationalization of Québec's electricity in 1962. "Anglophones still controlled over 80 percent of the energy sector through the early 1960s" (47), but then, when the provincial government bought out the remainder of Québec's private power companies, the resulting, nationalized Hydro-Québec served as a notice that "the subordinate status of Francophones in the Quebec economy" (ibid) was coming to an end.

Another major change that took place during The Quiet Revolution was the rapid
secularization of society. Up to this point, French-Canadian survival had been predicated on
traditional Roman Catholic ideologies of rural, isolated living, and high birthrates. This latter
phenomenon especially, known as "the revenge of the cradles" (Warren 71), called for French-
Canadians to have as many babies as possible in order to surpass the Anglophones in number and
thus make assimilation and discrimination against French-Canadians more difficult. The revenge of
the cradles did much to combat British immigration around the turn of the nineteenth century, with
the French-Canadians having "a birthrate 20 per cent higher than their English compatriots" (ibid).
However, with urban Montréal replacing rural Québec as the French-Canadian cultural center,
"much of the traditionalism that characterized the past was replaced by increasingly liberal attitudes;
long standing demographic tendencies, associated with a traditional rural way of life […], were
rapidly reversed" (Bélanger 1). This massive-scale secularization of French-Canadian society is
evidenced by the provincial government's take-over of the healthcare and education systems, which
had been under the control of the Roman Catholic Church, and by the subsequent decrease in
French-Canadian birthrates which coincided with the increased availability of birth-control and a
disregard for the Church's opposition to it.

Government reforms, the creation of Francophone institutions for health, education and
welfare, the realignment of Québec into opposing federalist and separatist factions, Québec's
changing social structure and the emergence of a new middle class, along with the above religious
and economics factors, all contributed to changing the face of Québec during the 1960s. Underlying
all of these developments, however, was the politicization of the French language. Continuing long
past 1966, this most defining characteristic of The Quiet Revolution, the question of language, also
became, and remains, Québec most pervasive identity challenge.

As the church's ideology of *la survivance* [survival] became outmoded in Québec, a new nationalist identity was born. In Montréal's urban setting, "English-language influences were infinitely stronger than in the homogeneously Francophone parishes of rural Quebec; thus, the continued survival and *épanouissement* [blossoming] of the French language and culture would seem to require confronting the status of English in Montreal" (Levine 43). One of the ways Québec Francophones addressed this requirement was to discontinue speaking of themselves as French-Canadian, and instead refer to themselves as Québécois. This linguistic paradigm shift identified Francophone Canadians "more by the province of the first colonists than by that of the country of Canada" (Fabbi 6), and radically demonstrated "Quebec's determination to shape its own future as a geopolitical entity" (Moss 82).

The roots of this nationalist identity went much deeper than exchanging ethnic titles. As French-Canadians shifted their ideologies away from Roman Catholicism, and thus its social and educational services, Canada "saw language become the main ingredient of the identity of Québec's French-Canadians" (Coulombe 80). The key aim of the nationalist movement then became to provide Québec's French-speaking majority, and thus the French language "with expressive power over the public sphere" (Coulombe 68), not an easy task to achieve, given that "within the Quebec economy and society on the one hand, and within federal institutions on the other" (MacMillian 90-91), the Québécois had been denied full access to this power for two hundred years. The fact that the majority of Canada's population outside of Québec is English-speaking promised to be an additional hurdle in the development of an equal language partnership through federal language policy.

In his discussion of Québec's economic conditions prior to The Quiet Revolution, when English-Canadian and American capital was still significantly invested inside the province, Mark Levine tells us that this time "was characterized by […] the eviction of the French Canadians from

commanding positions in the business world" (76), and that, because of English-Canada's economic

domination of the French-speaking community, a "system of linguistic dualism" had been created

that "logically promoted the degradation of the French language and risked leading, sooner or later,

to its final collapse" (53). Documentation provided by the Royal Bilingual and Bicultural

Commission just after the Quiet Revolution showed that "Francophones experienced a long history

of disadvantages and occasionally outright discrimination concerning their language" (MacMillan

91), and that

> French-Canadians were under-represented [in the work place] compared to their share of the
>
> national population […] and that they were concentrated in the lower echelons of the
>
> departmental public service, such that, the higher the position level, the smaller the
>
> percentage of Francophones […]. Beyond that, only 9 per cent of positions were designated
>
> bilingual, a strong indicator of the limited commitment to providing government service in
>
> French. (ibid)

It was exactly this type of linguistic discrimination that the nationalist movement aimed to eradicate

during The Quiet Revolution. It also exacted that the Québécois be recognized as a distinctive

presence within Canada, and that French, the language of Québec's majority and the defining

characteristic of the Québécois identity, be protected. The agenda of The Quiet Revolution was

nothing less than, as Levine puts it, "a movement to dislodge the Anglophone elite", "to abandon a

bilingualism that was fundamentally unequal" (Levine 40, 52-53), and to reconquer "Montreal as the

metropole of French-speaking Quebec" (ibid).

With the huge influx of Francophones into Montréal between the 1930s--1960s came an

"*ébullition culturelle*" (43), a cultural exuberance whereby Québécois poets, authors, journalists,

playwrights, publishers, political and linguistic intellectuals all contributed to the creation of a new

Francophone identity separate from outmoded French-Canadian rural traditions and religious

institutions, and from Anglophone institutions and English-language subjugation. This new creative

class strengthened Québec's burgeoning nationalism by bringing the French voice and the

Québécois experience to a mass audience, expressing the sentiments, frustrations and aspirations of

a culture in search of a nation. One of these new voices was author Victor-Lévy Beaulieu, a young,

prolific writer who, forty years later, is still expressing the concerns of the Québécois.

In an interview with *Le Devoir* in 1968, Beaulieu stated that *Mémoires d'outre-tonneau*[11]

[Memoirs from Beyond the Cask]*,* his first publication, was "une allégorie de la révolte" [an allegory

of revolt]. The type of revolt he alludes to, however, is at first glance difficult to decipher. Replete

with base language and crude, misogynistic ideologies, this absurdist novel could easily be dismissed

as a juvenile story of self-destructive, hate-filled existential angst. By understanding the framework

within which it was written, however, we can discover in *Mémoires* an allegory of revolt that alludes

to, generally, an all-pervading sense of cultural and societal alienation and, specifically, the national

linguistic identity crisis happening in Québec at this time.

The story begins with the main character, Satan Belhumeur, telling his audience how he

came to be banished from the fictional Québécois village of Petit-Gibet after a bout of lude

behaviors including exhibitionism and public masturbation. A grotesque, absurdist character --

indeed "protagonist" would be too fine a word for he whom popular Montréal newspaper *Le Devoir*

has labeled "ce jeune homme un peu fasciste" (Major 1) [this slightly fascist young man] --, Satan

sets the scene by divulging that yesterday he was walking the streets of Petit-Gibet with "une

lanterne dans une main et mon pénis dans l'autre" (11) [a lantern in one hand and my penis in the

other]. In this scene, Satan compares his lifestyle to that of the ancient Greek philosopher Diogenes,

"qui était aussi laid et aussi dégoûtant que moi" (ibid) [who was as ugly and disgusting as me].

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[11] The title of this novel refers to Chateaubriand's book, *Mémoires d'outre-tombe*. A comparison
between these two works is beyond the scope of this paper.

Diogenes, who rejected common notions of human decency and who was reviled for his dog-like

behaviors, was an exile and outcast, like Satan Belhumeur. The next morning, Satan, now banished

from the village, wanders the barren countryside, emaciated, dirty and society-less. He waits, making

no attempt to flee the punishment for his crimes, which the vengeful women of Petit-Gibet, who

intend to castrate Satan and hang him up to die at the church, will soon dole out.

One of the ways Beaulieu represents Québec's general sense of cultural alienation is though

the narration of Satan Belhumeur who, as an exile, sits looking out over his former society,

describing the drudgery and meaninglessness that he sees:

> Il fait maintenant nuit noire sur Petit-Gibet et aux alentours de Petit-Gibet. Ailleurs le
>
> soleil brille. Plus loin ailleurs il pleut. Encore plus loin ailleurs des hommes se lèvent
>
> pour aller suer dans les mines ou pour rêvasser devant des piles de rapports de
>
> comptabilité. Dans le dernier des ailleurs des hommes, brisés par les rêves scrofuleux de
>
> leur morne existence, sortent de la nuit. Mais partout ailleurs et partout ici il y a de la
>
> douleur. Il y a de la solitude. Il y a de l'angoisse. La seule question est: comment en sortir?

(49)

> [The night is black right now in Petit-Gibet and all around Petit-Gibet. Elsewhere the sun is
>
> shining. Further elsewhere it's raining. Still further elsewhere men are getting out of bed to
>
> go sweat in the mines or to daydream in front of piles of accounting reports. In the last
>
> further elsewhere men, broken by the depraved dreams of their dreary existence, go out into
>
> the night. But everywhere elsewhere, and everywhere here there is sorrow. There is
>
> loneliness. There is anguish. The only question is: how to escape?]

This bleak look at Petit-Gibet and beyond reveals an oppressive and oppressed world inhabited by

broken men who survive either by toil or by menial, unfulfilling tasks. When one considers

Québec's cultural zeitgeist, the accuracy of the scene becomes apparent. 1968, the year in which

Mémoires d'outre-tonneau first appeared, also saw the emergence of the *Parti québécois*, Québec's

nationalist political party that advocates for its secession from Canada. This party's rise to power

reflected the need for the national language of the Québécois, French, "to gain expressive power by

being used in various sectors of life, namely the economy, the arts, the government, management,

and technology" (Coulombe 67). It is clear from this scene that Satan Belhumeur neither witnesses

in other men, nor experiences for himself, this sense of expressive power. Williams tells us that

during this period of time in Québec, the French-speaking minority was denied full rights to

participate in public life and in the economy (20). The images and sentiments in this scene

communicate this denial of rights, as the men of Petit-Gibet comprise a whole society of what

appears to be second-class citizens, subjugated and void of a sense of belonging. Satan asks how

they can escape this situation. The *Parti québécois* answered this question by demanding "language

rights and territorial control" (ibid) for the Québécois; Satan, on the other hand, answers it with

misanthropic revile.

Beyond Satan Belhumeur's personal observations, the character himself stands for

Québécois alienation: "[Au] fond de moi," Satan bemoans, "je ne sais pas qui je suis" (80) [Deep

down inside, I don't know who I am]. We can understand the relationship between Satan and the

Québécois experience by examining Québec's nationalist position. One of the main purposes of the

Parti québécois was to gain for the French-speaking population "some form of recognition […] so that

members [would] value themselves and regain their self-respect" (Coulombe 67). That the character

Satan Belhumeur lacks both self-respect and recognition is evident in the following passage: "Est-ce

ma faute à moi[…] si je suis laid? Si je suis nu? Si je pu et si je suis sale?" [...] Les gens me fuient. Je

n'ai rien ni personne. Je suis seul" (Beaulieu 9) [Is it my fault if I'm ugly? If I'm naked? If I stink and

if I'm dirty? People run away from me. I don't have anything or anyone. I am alone]. While

obviously Satan's grotesque and extreme identity issues move far beyond the type of which

Coulombe speaks, Satan's absence or lack of identity likely still alludes to the presence of the same

phenomenon throughout French-speaking Québec. In *Language Rights in French Canada,* Pierre

Coulombe reasons that "it is difficult for anyone to maintain an identity if the conditions for that

identity are denied by others" (67). As the Québécois, seeking to pull themselves out from under

Anglophone/English-language subjugation, experienced the denial of national identity, Satan

Belhumeur, who carries within himself "un monde étrange, silencieux, et impersonnel" (9) [a strange,

silent, and impersonal world], experiences both societial and personal unrecognition.

     To move beyond the novel's more general conveyance of cultural, and even personal

alienation, and towards its allusions to Québec's linguistic identity crisis, we need look no further

than Satan Belhumeur's dreams. Through an interpretation of these scenes we are able to discover

that Satan's sense of powerlessness/power has a direct relationship to the sense of control he gains

through language:

> [J]'ai songé que j'émettais des sons dont le pouvoir sur les objets, les animaux
>
> et les hommes était immense…Des milliers d'esclaves heureux travaillaient sous mes ordres,
>
> et je me livrai sur eux à quelques expériences cruelles dans le seul but de vérifier la puissance
>
> de ma parole magique. (29)
>
> [I dreamed that I could emit sounds that had immense power over objects, animals
>
> and men. Thousands of happy slaves worked under my command, and I performed cruel
>
> experiments on them with the sole purpose of verifying the power of my magical speech.]

In this dream, a role reversal (taken to abusive extremes) representative of the subjugated

(Francophones) and the subjugator (Anglophones) takes place, whereby Satan sheds his

disadvantaged status through his ultimate command of language. This dream speaks to Québec's

nationalist agenda because it addresses the idea of "power and control over the public sphere"

(Gauvin and Henderson 66) through language. In their article "From Octave Crémazie to Victor-

Lévy Beaulieu: Language, Literature, and Ideology," Gauvin and Henderson state that there are

"cases where nationalist ideology and the national language go hand in hand because people identify

themselves and their nationhood with the language they speak" (ibid). These ideas are certainly

applicable to Québec, as evidenced by the conclusion reached in the late 1960s by the Royal B&B

Commission that "the life of French-Canadian culture necessarily implies the life of the French

language" (Coulombe 75). The character of Satan Belhumeur relates specifically to these nationalist

and linguistic dialogues calling for "the abandonment of a bilingualism that was fundamentally

unequal" (Larrivée 53) because he incarnates the French-speaking population in revolt against their

disadvantaged social status.

In another of Satan's language-themed dreams, a sense of impersonality and powerlessness,

more akin to his waking-life experience, replaces the omnipotence Satan feels in the previous dream:

La nuit dernière, j'ai rêvé … [d'une] usine de fœtus qui reproduit à la perfection

des ventres femelles où sont conçus les bébés. Des étiquettes étaient collées sur

ces fœtus, mais je n'ai pu les lire car elles étaient écrites en une [. . .] langue qui

m'est étrangère. (28)

[Last night, I dreamed ... [of a] fetus factory that perfectly reproduced female bellies, where

babies were conceived. Labels were attached to these fetuses, but I wasn't able to read them,

because they were written in a tongue that was foreign to me.]

The power dynamics represented in this second dream are fascinating for several reasons. First, the

"usine de foetus" calls to mind the revenge of the cradles phenomenon. These baby-making

machines, whose bellies bear writing in a foreign tongue, suggest a representation of the

Anglo/Franco battle for a dominant population within Québec. Though historically it was the

Roman Catholic Francophones with the highest birth rates, in this dream the presence of the labels,

written in a language that he is unable to read, suggest, in an odd reversal, that these fetuses

represent an Anglophone, or "foreign" population. Futhermore, Satan's consistent debasement of women throughout this story casts them in the perpetual role of other, and this fetus factory--a veritable building full of female bellies, read: disembodied women--may stand in as a symbolic replacement for different alienating factors in his environment, i.e., the Anglophone domination of his culture and the sense of powerlessness he feels as a result of it. Of even further interest is that this factory and these bellies can simultaneously reflect, to return to the first type of allusion discussed in this analysis, a more general sense of meaninglessness and impersonality.

Achieving a sense of cultural connection and belonging through language is the logical corollary to this sense of powerlessness. However, through Satan Belhumeur, this idea manifests itself through a void of that sense of belonging. Mentioned several times throughout *Mémoires d'outre-tonneau* is Satan's belief that no one in society listens to anyone else. Satan refers to Montréal repeatedly as the "Tour de Babel" (Beaulieu 59) [Tower of Babel], asserting that all men are living in an asylum, that

> [I]ls parlent tous, ils ont tous des opinions, ils écrivent tous des billets dans les journaux, des éditoriaux, des tracts, ils hurlent tous à la radio et à la télévision, ils écrivent tous des livres, et personne ne les écoute, et personne ne les écoutera plus jamais, car tout le monde est devenu tout le monde. (21)
>
> [[T]hey all talk, they all have their opinions, they all write notes in journals, editorials, tracts, they all yell at the radio and the television, they all write books, and no one listens to them, and no one will ever listen to them, because everyone has become everyone.]

In understanding that language gives "access to, and is one of the creative forces of, shared meanings and understandings, which together contribute to define identity" (Coulombe 68), we can see that this passage conveys the reality of a collective population's detachment from society, be it the imaginary village of Petit-Gibet, or the real world metropolis of Montréal. If the importance of

language lies in the idea that it "contributes to giving a concrete shape to one's distinctness as a person, while at the same time providing a matrix for communal identification" (ibid), then Satan's observations demonstrate and symbolize a grand scale disengagement from this matrix. Not only is Satan living within a confusion of language, it is a confusion of languages that exists in a society that is disinterested in itself.

After having explored the historical context of this novel, it becomes easier to discover that this "allegory of revolt" alludes to Québec's national linguistic identity crisis at the time of the Quiet Revolution, a phenomenon that permeated all aspects of French-speaking society. Gauvin and Henderson explain that a common literary expression of the Québécois malaise leading up and during The Quiet Revolution was the attempt "to formulate formlessness and difficulty of being" (37). Beaulieu's *Mémoires* stands as a perfect example of this expression. Satan's extreme "difficulty of being" can be viewed as a symbol of the Québécois experience of cultural depreciation and linguistic subjugation. Absurdist revolt is certainly a logical option to an all-pervading sense of un-belonging.

Much has changed for Québec since *Mémoires d'outre-tonneau* and the *Parti québécois* first appeared in 1968. Forty years have past since the Quiet Revolution gave impetus to a national sovereignty movement and hope for Québec to "se libérer du joug des repressions" (Beaulieu, "Papineau" 1) [liberate itself from the yoke of repressions]. Some would argue that Québec has entirely succeeded in safeguarding the French language and the Québécois culture. Others, like Beaulieu, believe Québec can never experience true liberty until it becomes an independent nation. Popular support for the independentist movement has waxed and waned, leading up to the current political situation, with Beaulieu declaring "nous n'avons jamais été aussi loin de l'indépendance que nous le sommes actuellement" (ibid) [we have never been as far from independence as we are right now].

The most remarkable event following The Quiet Revolution was the passing of Bill 101 on August

26, 1977, a year after the *Parti québécois* won its first victory. Also known as The Charter of the French Language, this bill reflected the National Assembly's resolve "to make French the language of Government and Law, as well as the normal and everyday language of work, instruction, communication, commerce and business" (Chevrier 133). On this date, French was established as the sole language of Québec. Camille Laurin, *Parti québécois* Minister of State for Cultural Development, who regarded language policy as integral to the process of undoing "the Francophone experience of conquest and domination, frustration and insecurity" (qtd in Levine 113), lauded Bill 101 as an "act that fundamentally reverses the course of [Québec's] history of the last two centuries…Québec is hereafter and forever French" (ibid 118-119). Over the next ten years, Montréal witnessed the mass exodus of unilingual English-speakers from the province. This exodus strengthened the image of Montréal as "an island in a sea of English-speaking people" (Fabbi 5). Three years later, the *Parti québécois* introduced the 1980 Québec Referendum, the first referendum to put the issue of sovereignty on the ballot. It was defeated by a nineteen percent margin.

In the 1980s, there were two chances for Canada to establish a doctrine of duality for itself. Both failed. The first occurred in 1982, after the United Kingdom transferred all remaining legal powers over to Canada. Prime Minister Pierre Trudeau called for various amendments to Canada's constitution, and all provinces approved and ratified the new constitution except Québec, which claimed that it limited Québécois language rights. Trudeau, "rather than working with the issue until it was resolved, went ahead and amended the constitution without Québec's signature" (Fabbi 7), a move that upset the Québecois because, "once again, they felt that the English Canadians would rather bully them than include them as partners" (ibid). The second opportunity for duality, The Meech Lake Accord of 1987, aimed to correct the mistakes made five years earlier. The accord seemed to have satisfied all concerned parties, "until last minute objections from English Canada, in particular against the clause asserting the distinct status of Quebec" (Warren 84), which many English-speakers believed granted Québec special status. After the Meech Lake Accord fell through, many Québécois nationalists believed they were seeing "the dream of duality finally

vanish from the collective imagination of the Québécois" (Coulombe 138). To this day Québec finds itself "in effect outside the Canadian constitutional order" (Warren 84). Nevertheless, The Meech Lake Accord incident greatly affected the Québécois' support for independence. Its rejection brought "unprecedented levels of nationalist feelings in Québec" (Warren 84), and when the new sovereignty referendum appeared on the ballot in 1995, it was rejected by a mere majority of one percent.

The year 2003 saw the *Parti libéral* beat the *Parti québecois* in provincial elections, ending the pro-independence party's nine-year rule. Four years later in 2007, the Action Democratic Party, advocating for autonomy for Québec, but within Canada, gained such support in provincial elections as to knock the *Parti québécois* into third party status. In February 2008, the current *Parti québécois* leader, sharply diverging from the party's tradition of strict separatism, advocated for the teaching of English in Québec elementary school classroom. In protest of this development, VLB chucked his most recent novel, *La Grande tribu*, into the fire.

In the forty years that Beaulieu has been writing, he has won no fewer than thirteen prestigious literary awards, including the Prix Québec-Paris, the Grand Prix littéraire de la Ville de Montréal, and Canada's Governor General Award, for which he was a finalist on two other occasions. He is also the founder of his own publishing house, VLB editions. VLB's work flourished in the years following The Quiet Revolution with their express purpose of "expos[ing] and address[ing] the situation of the hard-done-by francophone Quebecker" (Richler, "Country" 363). In 1974, Robert Guy Scully of *Le Devoir* said of the author, "VLB est notre Balzac, non seulement il dit aux autres comment faire leurs livres, il sait faire les siens" (qtd. in Melançon 13) [VLB is our Balzac, not only does he tell other how to make their books, he knows how to make his own]. In 1983, scholar Benoît Melançon declared Beaulieu "d'abord un personnage (qu'on ne *peut* pas faire disparaître) et une institution (qu'on ne *veut* pas faire disparaître)" (italics his 7) [first of all a character (that one *can't* make disappear) and an institution (that one doesn't *want* to make disappear)]. While it

is true that his staunch seperatism and his penchant for dramatics and harsh language have won him

more than a few enemies,[12] his talent for expressing the hopes and concerns of the Québecois are

what made him one of Québec's most-widely read authors.

VLB's most recent novel, *La Grande tribu, c'est la faute à Papineau (grotesquerie),* has been the

focus of great controversy in Québec since its release five months ago not so much for its content as

for the fact that the author burned it before it even hit the bookstores. What Beaulieu communicates

through this story, however, is controversial in its own right. By playing fiction and biography off

each other in a calculated dance, Beaulieu traces Québec's struggle to its endpoint, that is to say, to

the endpoint that he and 1,485,851[13] other Québécois nationalists visualized for Québec following

the Quiet Revolution. While employing themes of loss, illness and disability, and through the

exploration and deconstruction of institutionally-established definitions of patriotism and rebellion,

Beaulieu picks up where Papineau left off, and this time the rebellion comes out in his favor.

In speaking of this novel, Victor-Lévy Beaulieu has recently said: "[j]'ai appelé ça une

grotesquerie, parce que ce n'est pas vraiment un roman. C'est plutôt une sorte de fable" (qtd. in

Desmeules, 2) [I called it a grotesquerie, because it's not really a novel. It's rather a sort of fable].

Christian Desmeules of *Le Devoir* has called it a "[g]ros livre bicéphale" [a fat two-headed book]; at

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[12] Beaulieu has created quite a track record for himself in the last two years. In addition to his remarks about Pauline Marois, he called Québécois separatist playwright, Michel Tremblay, a "turncoat" and an "asshole" after Tremblay said he no longer believed in a sovereigntist movement based on economic arguments rather than cultural identity (MacPherson, 1). He has threatened to knock out the teeth of Canadian author Noah Richler, after Richler wrote unfavorably of VLB's politics in his latest novel, *This is My Country, What's Yours?* Most controversially, VLB wrote an article in *L'Aut' Journal* calling Canadian governer-general Michaëlle Jean a "negro-queen" ("Bloc blast" 1). VLB defended his statement, saying that he did not intent to be racist, but was using this term "based on the so-called theory of the roi-nègre, which he said refers to leaders of African colonies who deliver the colonizer's message to the population" (ibid).
[13] This number is taken from the amount of viable "oui" ballots cast in the 1980 Sovereignty Referendum vote. See "Référendum du 20 mai 1980."

876 pages, divided into two continuously alternating two parts, Desmeules's description is apt. This

is a monster of a book. Beaulieu calls it his vision of Québec. The first part, *Les Libérateurs,* offers

vibrant biographies of popular liberators of the nineteenth century: Simon Bolivar, Abraham

Lincoln, Jules Michelet, Daniel O'Connell, Walt Whitman, Charles Chiniquy and, of course,

Québec's own Louis-Joseph Papineau. The second part, *Les Lésionnaires*, is an excessive,

hallucinogenic, at times horrifying fictional story told in the first person of Habaquq Cauchon, a

double amputee with prosthetic legs and a purported hole in his brain, who lives in a mental asylum

and who has made it his task to delve deep into his origins. Cauchon, a Québécois, has discovered

that he is the proud descendant of half-men / half-pigs, from the nation of the *Peuple des Petits*

Cochons Noirs [People of the Little Black Pigs]. Cauchon befriends a resident of the asylum, *l'orignal*

épormyable,[14] and together they meet up with the *Parti des lésions*[15] for a grass-roots assault on Canada's

National Assembly, demanding a unilateral declaration of independence for Québec.

     In a February 2008 interview with *Le Devoir*'s Christian Desmeules*,* Beaulieu said that

Papineau represents at a certain level, "le père fondateur du Québec -- mais qui ne l'a pas été"

(Desmeules 2) [the founding father of Québec, but who wasn't]. It is this "wasn't" that forms one

of the recurring themes of *La Grande tribu* -- of being denied liberty, of having lost, of still losing.

This becomes evident in the second, "grotesquerie" part of the book, which will be the main focus

this analysis, through the ridiculous chants that pour uncontrollably from Cauchon's mouth all

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[14] *La charge de l'orginal épormyable,* is the title of a play written by Québecois author Claude
Gauvreau. Gauvreau was known for deconstructing and reconstructing vocabulary, creating the
Explorean Language. His aim was to dismantle the stifling, religious ideologies of 1950s
Québec. Gauvreau was institutionalized in Montréal over ten times in eight years after his
lover's suicide in 1952. Beaulieu's character in *La Grande tribu* is a tribute to Gauvreau, whom
Beaulieu also considered a liberator. At the time of this paper, I was unable to discover the
meaning of the Explorean word "épormyable".
[15] This word lésion (in English "lesion") is but one of many plays-on-words that Beaulieu
employs throughout his novel. It plays on the word "legion," and through it Beaulieu expresses
the sentiments of an army of rebels, bound by their shared experiences of being repressed and
wounded by the past, and by their thirst for liberty through sovereignty.

throughout *La Grande tribu*:

>   Si les Kebekois si mous
>
>   Ont toujours peur des loups-garous,
>
>   Si ne sentant plus leur importance,
>
>   Il cauchemardent l'independence,
>
>   C'est la faute à Papineau,
>
>   C'est la faute, faute, faute,
>
>   C'est la faute à Papineau! (545)
>
>   [If the Québécois still shudder
>
>   At the thought of boogey monsters
>
>   If not sensing their importance
>
>   They have nightmares about independence
>
>   It's the fault of Papineau,
>
>   It's the fault, fault, fault
>
>   It's the fault of Papineau!]

Though the above is one of the more sensical chants to be found in the story, one cannot deny that even the weirdest and most non-sequitor of them bears witness to the message behind Beaulieu's title: without necessarily wishing to blame the man…*C'est la faute à Papineau*! That is to say, if the Rebellion of 1837 had gone the other way, perhaps Québec would be a sovereign nation right now.

But Québec is not. And Papineau did lose. No one knows this better than Cauchon; he's receiving shock therapy so that he'll stop thinking about it. In the asylum, which Cauchon's girlfriend *la petite actrice russe* [the little Russian actress] compares to the Canadian government, "une gigantesque enterprise de repression dont le seul but est de garder le pouvoir qu'on a" (724) [a gigantic enterprise of repression whose soul purpose is to keep its power], Doctor Avincenne, a

mad, experimenting tyrant who is later elected Cananda's Minister of Health, has made Cauchon his

pet project. After the death of his mother, a proud descendant of the *Peuple des Petits Cochons Noirs*,

Cauchon became orphaned, and so fell under the care of Doctor Avincenne. When Cauchon

developed a skin-eating disease that necessitated the amputation of his legs, Doctor Avincenne

preformed the operation. Later, when Cauchon developed a brain tumor, the doctor operated on

that, too. This operation left a hole in Cauchon's head that, according to the Doctor, never healed.

Cauchon's "trou dans le crâne" (78) [hole in the head] is the cause of his insanity. It makes him act

and speak in patriotic and rebellious ways. It is the source of his nationalist consciousness.

The *mise-en-scène* of *La Grande tribu* paints of grim picture of a disabled nation in need of

healing. In Cauchon's physical and mental disabilities, inflicted upon him by a two-faced, tyrannical

institution that is supposed to care for its residents, the allusion to Beaulieu's vision of Québec, as a

Francophone nation under the yoke of a bullying, federalist Anglophone government, is clear. But

much more lies beyond this blatant allusion. Cauchon has been struggling within Dr. Avincenne's

institution since the day he was pulled, mangled by the doctor's forceps, from his mother's birth

canal; and he has been in the doctor's grips since his mother's death when he was a young boy. In

Cauchon's tramatic, forced entrance into an unwelcoming world, we can see a culture invaded by a

colonial power. In Cauchon's mother's death, we witness a people without a home.

Under Doctor Avincenne's "care", Cauchon has been subjected to electroshock, lobotomy, the

straight-jacket, insulin therapy, being boiled overnight in a vat, and being hanged naked from a butcher's

hook, overnight, in a cold room. All this for the simple reason that Cauchon is a "[m]auvaise graine

d'insubordination! Mauvais semence et démence séparatiste!" (100) [a bad seed of insubordination! Bad seed

and separatist dementia]. Doctor Avincenne will not let up until he has made of Cauchon a "vrai patriote,

[…] quelqu'un qui respecte le gouvernement parce que le gouverement c'est l'autorité et que l'autorité est là

pour qu'on l'écoute, l'aime et l'aide" (502) [a true patriot, someone who respects the government because the

government is the authority and the authority is there to be listened to, loved, and helped]. But for all the suffering that the doctor inflicts upon him, at his core Couchon remains untouchable. "Aucune souffrance ne m'est insupportable!" Cauchon delares [There isn't any suffering that I can't bear!], because, he cries, "mon genie est souverain!" (507) [my spirit is sovereign]. Through the many interactions between Doctor Avincenne and Cauchon, Beaulieu carries the theme of disability, and mental illness in particular, far beyond any representation of the scars and wounds of a culture having suffered past injustices; Beaulieu establishes Cauchon's mental illness as an external rather than an internal entity; his disease does not really exist, it is a product manufactured by the institution that purports to cure it: "La schizophrénie, nous avons toujours vécu dedans" (821) [Schizophrenia, we have always lived inside it], Cauchon tells the doctor; in other words, this mental illness is not his disease, it is the disease of the institution. Beaulieu is not subtle in his allusion. As he has painted it, Cauchon's schizophrenia is Québec's: "…à moi seule, je constitue toute la nation, son idée raciale et son idée civile, son idée de rebellion et son idée d'indépendance" (68) [I alone, I constitute the entire nation, its racial idea and its civil idea, its idea of rebellion and its idea of independence]; as we follow the story, we come to understand that, according to Beaulieu, just as Cauchon's only hope for healing is to gain freedom from the asylum, the Québecois's only hope for cultural survival is to win autonomy for Québec.

As his story progresses, Cauchon, after a series of memory-cleansing electroshock therapies, does gain freedom from the asylum, though only after also undergoing brain surgery during which a remote control is planted inside the hole in his head for the purpose of administering electric shocks whenever Cauchon has thoughts of rebellion, or sentiments of patriotism or alliance towards his true ancestry. Although Cauchon is monitored day and night, and repeatedly electrocuted for his transgressions, even the remote-controlled implant in his brain is unsuccessful in altering his consciousness or his alliances. In an obvious nod to Québec's provincial motto "je me souviens" [I will remember], recalling Papineau's Rebellion of 1837, and to the strength and perseverance of a culture whose existence Beaulieu deems as still

threatened, Beaulieu reveals Cauchon as a man who refuses to deny his past, and who, even when faced

with the threat of physical violence, will not be controlled or defined by repressive institutional paradigms.

Traditionally-established definitions of rebellion and patriotism are two such ideological concepts

which come under the trenchant scrutiny of Beaulieu in this novel. In a discussion preceding the *Parti des

lesions* violent take-over of Canada's National Assembly, *l'orignal épormyable* tells Cauchon : "[q]uand on est

rebelle et patriote, le terrorisme n'existe pas. On est toujours le terroriste de quelqu'un" (794) [when one is a

rebel and a patriot, terrorism doesn't exist, one is always the terrorist of someone]. Beaulieu cleverly and

strongly supports this fictional character's point of view through the development of the biographical

chapters in this work, and discussed this purposeful development in a recent interview with *Le Devoir*'s

Christian Desmeules: "Moi, j'admets le terrorisme exactement pour les memes raisons que Michel Foucault,

à savoir pour des raisons nationalistes. Pensons aux Irlandais, par exemple, qui ont eu ce courage-là. Ceux

qui réussissent, pour revenir à mon livre, on ne les appelle pas des terroristes, mais des libérateurs" (3) [Me, I

accept terrorism for exactly the same reasons as Michel Foucault does, namely for nationalistic reasons.

Think of the Irish, for example, who had such courage. Those who succeed, to return to my book, they

aren't called terrorists, but liberators]. Québec's Papineau, to choose the most logical of *La Grande tribu*'s

"*Liberateurs*," is a perfect example of Beaulieu's (and Foucault's) argument. To the English-Canadians, he

was a troublesome rebel with a price on his head, but to the French-Canadians, he was "le chef politique

québécois" (2) [Québec's political leader].

In light of the subversive convictions Beaulieu expresses throughout his work, both through

fiction and biography, one cannot help but wonder if the writer regards militant action as an

appropriate and/or viable choice for contemporary Québec in winning its long-sought sovereignty.

In a February 2008 essay addressing his novel and his political discontent, Beaulieu stated:

> Moi qui suis pacifiste, je voudrais que le Québec devienne un pays et que cela lui arrive sans
>
> violence. Mais maintenant que nous n'avons plus de parti indépendantiste, que faire? Nous

laisser assimiler en contribuant nous-mêmes à cette assimilation? ("Papineau" 1)

[I, who am a pacifist, I would like for Québec to become a country and for this to come to pass without violence. But now that we no longer have an independentist party, what are we supposed to do? Contribute to our own assimilation?]

One of the great powers of meaning's deconstruction lies in its ability to unveil institutional and governmental agendas such as, for example, those learned of by Americans through an examination of the civil rights violations conducted under the United States Patriot Act. Certainly a patriot to some is a rebel (or terrorist) to others, but as some Americans may have learned, a meaning can only be subverted so far before it turns into doublespeak. In regarding Beaulieu's essay, I must ask myself how it is possible for a pacifist to advocate for violence. In *La Grande tribu*, Québec wins sovereignty by military action. In his essay, he alludes to the necessity of it. If, as Beaulieu states, he does not separate his work for the destiny of Québec, is this what he believes the Nationalist movement must come to?

Ultimately, in the case of Québec, the choice comes down to the voice of the people. Right now, that voice, a non-violent voice, a voice that expresses itself through the ballot rather than the barrel of a gun, has chosen to be a part of Canada, as English-language dominated as it is. But even in light of this situation, it is still not difficult to understand why a writer of such radical, separatist convictions as Beaulieu's might burn his masterpiece in his own woodstove. The disparity he sees between his vision of Québec as it should be (a vision his been writing since 1973) and Québec as it is, is significant. Beaulieu views Marois's suggestion to add more English classes to Québec's school curriculum as a sign that "le Parti québécois […] a renoncé à faire de l'indépendance l'idée fondamentale de son action" ("Pourquoi" 1) [the Party Québécois has abandoned independence as the fundamental idea of their action]. It has been several years since Beaulieu lived in Montréal. The francophone city which gave rise to Quiet Revolution Beaulieu now regards as a "kind of den of political iniquity, and lost to the nationalist cause" (Richler, "Teeth" 61). What

Beaulieu may not realize is that there might no longer be a question of whether or not this loss is a bad thing, or a good thing; more accurately, the loss just is. Canadian author Noah Richler, in his recent book, "This is My Country, What's Yours?" has said of contemporary Québec,

> Today, Quebec is a more sophisticated society, and VLB's voice is but one of many disputing it. [. . .] But sure, say many, Quebec society is different --but so, in principle, is everybody's else's. A kind of nullification has taken place as a new generation of Canadians, including [Quebecois], has become politically engaged with the world under grossly changed conditions of globalization and a massively various immigration affecting *all* of the country. (366)

 At this, VLB, a notoriously confrontational character, threatened to knock Richler's teeth out. On a more reserved note, however, Beaulieu met this argument by stating that, because there is no longer a *Parti québécois*, he feels like an orphan.

Perhaps there might be something important to be discovered in Beaulieu's sentiment beyond its personal validity. Author Colin William discusses the impact of English dominance on minority languages in his article "Language Policy and Planning Issues in Multicultural Societies," not only in French-Canadian communities, but the world-over. His views are very much in-line with VLB's lingering concerns over the dilution of the French language in Québec:

> Language, and the ideology it conveys, is […] part of the legitimization of positions within the global division of labour. Attempts to separate English from its British and North American value system are misguided, for English should not be interpreted as if it were primarily a *tabula rasa*. Any claim that English is now a neutral, pragmatic tool for global development is disingenuous, because it involves a 'disconnection between what English is ("culture") from its structural basis (from what it *has* and *does*)'. It disconnects the *means* from the *ends* or *purpose*, from what English is being used for. This type of reasoning 'is part of the rationalization process whereby the unequal power relations between English and other languages are explained and

legitimated. It fits into the familiar linguistic pattern of the dominant language creating an

external image of itself, other languages being devalued and the relationship between the two

rationalized in favor of the dominant language. This applies to each type of argument, whether

persuasion, bargaining, or threats are used, all of which serve to reproduce English linguistic

hegemony. (41)

In *La Grande tribu*, during a scene in the asylum in which Doctor Avincenne administers "therapy" to

Habaquq Cauchon, Cauchon pleases the Doctor by telling him what he wishes to hear concerning

Cauchon's newfound loyalty to Canada: "[un] seul pays" he says [one single country], "une seule

nation et tous les rebelles éliminés ou envoyés en Irak et en Afghanistan pour se battre. La liberté!

Je me meurs de combattre pour la liberté maintenant que je suis guéri!" (500) [one single nation and

all the rebels eliminated or sent to Iraq and to Afghanistan to fight. Liberty! I will kill myself in

combat for freedom now that I am cured!]. This excerpt serves as a fine example of what Beaulieu

views as the inevitable repercussions of indifference to cultural and linguistic assimilation. For

Beaulieu, the Québécois surrender to the English language is not just a surrender to bilingualism, it

is a surrender to globalization, uniformity and post-colonial capitalist imperialism.

Despite feeling like an orphan in his own country, Beaulieu is not giving up on the dream of

independence. After weeks of consideration, VLB announced this April that instead of burning the rest of

his books in protest, he will be offering them up, for free, to the *Parti indépendantiste*, so that they may use

them to fund their cause. This will not be a loss for him; he will be representing the party in the next

election.

Works Cited

Beaulieu, Victor-Lévy. "Ce n'est plus la faute à Papineau."*L'Aut' Journal.* 26 February

     2008. 11 August 2008 < http://www.lautjournal.info/default.aspx?page=3& NewsId=633>.

---. *La Grande tribu, c'est la faute à Papineau (grostequerie).* Édition Trois-Pistoles, 2008

---. *Mémoires d'outre-tonneau.* Trois-Pistoles: Éditions Estérel, 1968.

---. "Pourquoi j'adhère au Parti indépendantiste" *www.Vigile.net.* 15 April 2008. 10

     August 2008<http://www.vigile.net/Pourquoi-j-adhere-au-Parti>

Bélanger, Claude. "Events, Issues and Concepts of Quebec History: The Quiet

     Revolution" *Quebec History.* Marianopolis College, 1999. 8 May 2008

     <http://faculty.marianopolis.edu/c.belanger/quebechistory/ events/quiet.htm>.

"Bloc blasts author Beaulieu for 'attack' on Michaëlle Jean" *CBC News.* 26 May 2008. 11

     August 2008 <http://www.cbc.ca/canada/montreal/story/2008/05/26/qc-

     vlbbacklash0526.html>

Chevrier, Marc. "A Language Policy for a Language in Exile." *Linguistic Conflict and*

      Language Laws: Understanding the Quebec Question Ed. Pierre Larrivée. New York, New York :

      Macmillian, 2003. 118-162.

Coulombe, Pierre A. *Language Rights in French Canada.* New York: Peter Lang

      Publishing Inc., 1997.

Desmeules, Christian. "Entretien -- C'est la faute à VLB." *Le Devoir.com.* Édition du

      samedi 23 et du dimanche 24, February 2008. 1-4.

Fabbi, Nadine. *History of the Sovereignty Movement in Québec.* Seattle: University of

      Washington, 2003. 1-7.

Gauvin, Lise and Emma Henderson. "From Octave Crémazie to Victor-Lévy Beaulieu:

      Language, Literature, and Ideology." *Yale French Studies.* No. 65, *The Language of Difference:*

      Writing in Quebec(ois), 1983. 30-49.

Guay, Serge-André. "Que Victor Lévy Beaulieu brûle son oeuvre et n'oublie rien."

      Québec-Politique.com. 6 March 2008. 23 May 2008 <http://www.quebec-

      politique.com/article538.html>.

Kröller, Eva-Marie. "Victor-Lévy Beaulieu." *Dictionary of Literary Biography, Volume*

      53: Canadian Writers Since 1960, First Series. Ed. W.H. New. Vancouver, B.C.: University of

      British Columbia. The Gale Group, 1986. 42-48.

Laurin, Danielle. "VLB persiste et signe.*" Radio-Canada.* 4 March 2008. 23 May 2008

      <http://www.radio-canada.ca/>.

Lévesque, René. "A la prochain fois." *Radio Canada.* 20 May 1980. 10 August 2008

      <http://archives.radio-canada.ca/politique/provincial_territorial/clips/4212/>

Levine, Mark. *The Reconquest of Montreal: Language Policy and Social Change in a*

Bilingual City.″ Philadelphia: Temple University Press, 1990.

Macpherson, Don. "Book-burning shows Marois is in trouble Quote of the day." *The*

   Gazette. Montreal. 28 February 2008. 19 May 2008

   <http://www.vigile.net/Book-burning-shows-Marois-is-in>.

MacMillian, Michael C. "Federal Language Policy in Canada and the Quebec

   Challenge." *Linguistic Conflict and Language Laws: Understanding the Quebec Question* Ed. Pierre

   Larrivée. New York : Macmillian, 2003. 87-117.

Mailhot, Laurent, "Le roman québecois et ses langages." *Stanford French Review* 19,

   printemps-automne 1980. 147-170.

Major, André. "Memoires d'outre-tonneau: une allégorie de la révolte." *Le Devoir.*

   Samedi, 21 décembre, 1968.

Melançon, Benoît. "VLB personage et institution. » *Etudes Français.* Vol. 19, 1,

   printemps 1983. 5-16.

Monroe, Susan. "Quebec" *About.com: Canada Online.* 7 August 2008

   <http://canadaonline.about.com/cs/provinces/g/quebec.htm>.

Moss, Jane. The Drama of Identity in Canada's Francophone West. *American Review of*

   Canadian Studies: Spring 2004, Vol. 34. Issue 1. 81-97.

Nardocchio, Élaine F. "Les Belles-Soeurs et La Révolution tranquille." *Canadian*

   Historical Review. University of Toronto Press, Vol. 62, No. 4, 1981. 343-351.

"Référendum du 20 mai 1980." *Directeur général des élections du Québec*, updated

   March 20, 2006. 11 August 2008 <http://www.dgeq.qc.ca/fr/ tableaux/

   Referendum_1980_8483.asp>

Richler, Noah. "VLB wants to knock my teeth out." *Maclean's.* 17 March 2008, Vol. 121

Issue 10. 60-61.

---. *This Is My Country, What's Yours? A Literary Atlas of Canada.* Toronto, Ontario:

McClellan and Stewart Ltd., 2008.

Taylor, Charles. "Why do Nations Have to Become States?" *Philosophers Look at*

Canadian Confederation, ed. Stanley G. French. Montreal: L'Association canadienne de

philosophie, 1979.

Warren, Jean-Phillipe. "The History of Quebec in the Perspective of the French

Language." *Linguistic Conflict and Language Laws: Understanding the Quebec Question* Ed. Pierre

Larrivée. Macmillian, 2003. 57-86.

Williams, Colin H. "Language Policy and Planning Issues in Multicultural Societies."

Linguistic Conflict and Language Laws: Understanding the Quebec Question Ed. Pierre Larrivée.

Macmillian, 2003. 1-56.

Portland's Artisan Economy: The Arts and Crafts Sector

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Abstract

The city of Portland, Oregon has recently been experiencing a transformation from an economy of large-scale mass production to a post-modern economy. While current theory maintains that economic development requires expansion of specialized industrial goods and services being traded to other regions, Portland is challenging this notion through its unique characteristics of local production. In what is becoming known as the artisan economy certain sectors are demonstrating craft-like qualities that have catalyzed their success. As a leader in planning, civic life and livability, Portland has increasingly drawn attention from the outside and presents an interesting story that may shed some light on its economic evolution. The study will be used to draft a chapter as part of a book on Portland's artisan economy and will specifically focus on the arts and crafts sector. The research techniques will include document research, visits to craft outlets, fairs and collectives, and personal interviews with local artisans. This will provide an overview of the sector and its relationship to the larger artisan economy within Portland, presenting profiles of individual artisans and their insights into handcrafted production as an alternative to large-scale mass production. This will help tell the story of Portland's unique artisan economy and its potential for success within larger markets.

Introduction

The goal of this research is to contribute to a chapter that will be included in a book on Portland's artisan economy, providing an overview of Portland's arts and crafts sector and its relationship to the larger artisan movement within Portland. The participants have maintained qualities associated with locality that allow them to use resources more efficiently, create shorter chains of accountability, build relationships among other artisans and customers, and provide unique qualities of taste and style. This kind of approach has helped the city's major market sectors of microbrews, foods, cycling, and fashion to become a vital source of the city's economic growth and it seems to be presenting an alternative for the current economic trajectory. This study is an attempt to better understand how, in a

global mass market economy that produces at all levels of quality and price, Portland's local

artisans find a market for their crafts and maintain success?

Overview of an artisan

Heying, Ryder, and Eller's recent research on the changing fashion sector of

Portland compares aspects of the industrialized world to those seen in emerging trends,

providing a basis for understanding the characteristics of an artisan. Most basically, an artisan

a craftsperson skilled in making something; a more romantic definition is someone who

works with the hands, head and heart. The artisan's products are handmade and individually

unique, with their design closely tied to their production. Highly valued are the process,

tools, material, and skill involved. The products of the artisan are meant to be appreciated

over time. The work life of an artisan is loosely structured and often blended with personal

life; work, living, and socializing spaces are intertwined. Increased skill is rewarded and

personally satisfying.

The organizational structure of an artisan enterprise is at a small or medium scale. A

high level of autonomy and flexible specialization allow the artisan much freedom in his or

her work. Artisan firms tend to be clustered and collaborative with low barriers to entry and

lots of room for a plethora of customized services and products. Participants are frequently

on the brink of innovation through the aid networking and learning more about the craft.

Artisans typically share a common set of ethics which include staying small, local,

and self-reliant. The price set by the artisan reflects the high quality nature of product.

Throughout production there is often a high level of consideration for the work, waste, and

use. The small nature of an artisan enterprise creates shorter chains of accountability and

typically creates more trust between the producer and the patron.

The new term "artisan economy" suggests the antithesis of the modern economy and is essentially a system of production, distribution, and consumption that models the artisan-like approach to these human activities. Within the modern economy, products tend to be standardized with little tolerance for variation. The process of design is far removed from that of production with a sharp focus on the marketability and efficiency of the end product. Often times these products are designed to be replaced not long after their purchase and they maintain a generic style and suggest that they are meant to be consumed.

The work life within the modern economy is routine and structured. Work is strictly motivated by pay and is fixed and monitored by a level of management. Usually work, living, and socializing spaces are kept very distinct from one another.

The organizational structure of a modern enterprise is large scale with a low level of autonomy for workers. Firms contain inherent hierarchical structures that radiate command and control. The system allows for market dominance and creates a need for acquiring skills and knowledge in order to keep new competitors out. Innovation stems from professionals and is primarily used to increase sales.

The ethics of the modern economy differ greatly from those of artisans. Unprecedented growth is ideal, and often times the price is determined by competition and the mere perception of scarcity. Firms are spread out, dependent enterprises with utmost consideration for their own survival and for trading to gain competitive advantage. They rely on a heavy flow of marketing and rarely allow much connection between the producer and the patron (Heying, Ryder & Eller, 2008).

History of Arts and Crafts Movements

It is important to contextualize the arts and crafts sector within Portland's broader economy. The term sector is used to define the production and exchange of a particular type

of good, which in this case includes handmade pieces as opposed to machine-made production. Much of this sector seems to be an extension of the Arts and Crafts Movement of the 19th century in America and Britain which was largely a reaction to the Industrial Revolution and a search for authentic and meaningful styles during the machine-dominated age.

The second half of the nineteenth century saw a strong reaction to the rise of industrialism throughout Europe and the United States, and the Arts and Crafts Movement embodied the desire to improve aesthetic standards as well as working conditions within these societies. When the movement diversified and spread from Britain in the 1870s, one of the reasons it so successfully took root in the United States was due to the appeal of reviving a tradition of homespun, handcrafted goods in a country with such an individualistic nature. It added a wide variety of views, intentions and principles, and while many of the artists, crafters, and writers of the movement held more conservative and traditionalist ideals others pushed their socialist and reformist agendas. Author, poet and artist John Ruskin (1819-1900) connected the aesthetic nature of the movement with Protestantism, stating that "men were not intended to work with the accuracy of tools, to be precise and perfect in all their actions." Others worked to maintain Catholic and medieval influence as an ideal, romanticizing the material and moral fabric of the past when production was for necessity rather than profit.

A dominant belief was that a well-designed environment that included stylish buildings and interior furnishings would help to benefit society for all. Many influential minds rejected the trend of mass market production, feeling that industrial capitalism led to lower standards of aesthetic quality and compromised the well-being of the workforce through alienating, mechanized factory labor. From their view, crafts that included products

like jewelry, artwork, furniture, print, architecture should be aesthetically pleasing but should also be the result of contented labor rather than factory work. Workers should find joy in their simple handicraft and feel free to express their creativity and humanity through their labor.

Others however, like architect and educator Frank Lloyd Wright (1867-1959), celebrated the idea of large-scale mechanized manufacturing and pointed out the inherent flaw which was that beautiful work was mainly undertaken by the wealthy. Others who began crafting their wares with optimism eventually went bankrupt, revealing the paradox of the movement that handmade objects are far more expensive and therefore exclusive to a large sect of consumers. The realization arose that social reform could not depend on this movement alone and that the dilemma of this paradox needed to be resolved in order for the movement to be successful. Eventually the earlier romantic ideals began to fade as European and American designers came to terms with mechanized industrial production (Adams, 1987).

Crafts in the 20th Century

Craftmaking was envisioned as a uniting force around World War II, bringing together aesthetics of the east and west and create a sense of harmony among different nations. Aileen Osborn Webb wanted to unite craftspeople and elevate their work from a labor to an art that could be marketable through capitalism. Deemed responsible for the conception of American craft from rural hobbies to building blocks for New York's art scene, Webb founded the American Craft Council (ACC) which established the national craft magazine in 1942 called Craft Horizons, known today as American Craft. She later inspired creation of the School for American Craftsmen and the New York Museum of Contemporary Craft, and in the 1960s contributed part of her wealth to help create the

World Crafts Council as a way to celebrate craft making and its potential to develop global unity.

Webb transformed the ACC's national gathering at the 1964's World's Fair in New York City to an international conference that attracted 942 participants from 47 different countries, an impressive collection of diverse representatives. The ACC established itself as an organization with a vastly different approach to crafts from other parts of the world, claiming "that the approach to craftsmanship in America is that of the individual artist, working most often alone as both designer and producer, and creating one-of-a-kind prestige pieces" (as cited in Alfoldy, 2006, para. 5). The predominant idea that penetrated the international gathering was that an inventive craftsmen and a fine artist are practically indistinguishable and that craft, while maintaining its own dignity and distinction, should receive the same prestige as art. Although many non-western village artisans held significantly different perspectives about the purpose of craft from the western delegates, their low numbers of attendance contributed to a lack of discussion about the focus of craft as fine art during the conference.

Over the next decade craft making took on an image of professionalism and modernism as boundaries expanded to foster greater innovation, education, and willingness to work with designers and architects. A sense of elevation of the status of craft placed it within a sort of artistic hierarchy as western organizers sought to extend their cultural nobility into the nature of these crafts, more commonly products of professionals and formally trained artists. Often those making more traditional forms of craft felt excluded by this trend that transformed the identity of craft. Craft became classified into five distinct categories: apparel and adornment, utility and embellishment in the home, play, ritual and

celebration, and the maker's statement which includes glass, metal, clay and fiber. The last category includes most conceptual pieces formally attributed to individual makers.

The World Crafts Council demonstrated the importance of creating a uniting image for craft producers around the world despite cultural differences between western and non-western crafters. It also presented the paradox that preservation of indigenous crafts was dependent upon western intervention and industrializing forces. Events held by the council in 1974 further stirred up debate around differences between functional and non-functional crafts which remains an ideological divide in the craft world. The ramifications of the World Craft Council's formation continue to influence our conception of contemporary craft and efforts to bring together diverse types of craft across cultures despite the biases and marginalizing actions within western culture (Alfoldy, 2006).

Arts and Crafts in Portland, Oregon

Namita Gupta Wiggers, curator of the Museum of Contemporary Craft in Portland, has been working to contextualize modern craft in *Unpacking the Collection: Selections from the Museum of Contemporary Craft* which examines the craft movement in the Pacific Northwest and throughout the country. Her research provides a rich, detailed historical context for this movement and helps establish an understanding of how this unique city has fostered such a suitable environment for this kind of work. Susan Beal, a founding member of Portland's craft collective Super Crafty, also provides a comprehensive and condensed history of craft in Portland on the website for the collective at www.pdxsupercrafty.com.

Beal describes Portland as having a rich, evolving community involved in craftmaking as it has expanded over the years through new institutions and events focusing on old and new craft. As she points out, once the Arts and Crafts movement took hold in the United States the boundaries that kept fine art and functional craft distinct eventually

began to dissolve. One of the unique qualities of this realm is how women became leaders and had the opportunity to create and teach their handwork to the general public, and the work was appreciated not only for the craftsmanship but for its artistic qualities. The Portland craft community owes its presence largely to the presence of a few hardworking visionary women of the time (2008).

In 1907, local artist Julia Hoffman founded the Arts and Crafts Society (ACS) in Portland in order "to educate the community in the value and creation of fine craft." Through this society members could participate in a variety of events, programs, and classes held in their own homes. As the ACS continued to grow throughout the late 1930s, Julie's daughter Margery Hoffman Smith began interior design work for the new Work Progress Administration (WPA) building, the Timberline Lodge. Seeing the lack of ski lodges available in the Northwest, Margery brought over one hundred jobless locals to Mount Hood to learn to make furnishings through the media of wood, iron, and a variety of hand-woven fabrics. They used only Oregon materials and worked downtown near Skidmore Fountain finishing the interior of the lodge in 1937 just in time for its dedication by President Roosevelt. Margery attributed the success of the large craft project largely to her mother who worked so hard to bring artists and the public together.   That same year Lydia Herrick Hodge founded the Oregon Ceramic Studio (OCS) after finally securing help from the WPA in constructing a studio space. Margery Hoffman Smith supported the project and its use of Oregon clays, helping convince the city to provide the four-lot site on Southwest Corbett Avenue for the studio's construction under the terms that all clay artwork made in Portland's public schools could be fired at the studio. Leftover materials from the Timberline Lodge were used in building the wood and glass structure, used not only for ceramic work but also for exhibitions, retail of art materials, and lectures.

In the 1940s craft had taken off nationwide with the formation of the American

Crafts Council which by the 1950s had been hosting ceramic shows, craft shows and an

artist-in-residence program (Beal, 2008). Called "the Decade of Northwest Ceramic

Annuals", the 1950s were a time when artists shared a sense of freedom to experiment with

different influences and techniques using local materials, and their wide range of styles

pushed the boundaries of ceramics work and brought a newly defined American Craft

Movement (Museum of Contemporary Craft, 2008).

In 1952 the ACS combined with the Metal Guild and Allied Art organizations and

situated itself within Northwest Portland. It later purchased an old chiropractic hospital in

the area and transformed it into a crafts school where people could practice their work and

showcase it within a shop and gallery space. The vision of Julia Hoffman was materializing

as new institutions supported an emerging education and appreciation of art (Beal, 2008).

The movement in the 1950s coincided with a counter-culture fascination with Asian ideas

such as Zen Buddhism and with the influence of ideas from the "Beat Generation". People

discovered new ways of seeing, feeling, and experiencing objects, and this newfound

expressionism challenged the traditional notions of functional usage for crafts.

With the death of Lydia Herrick Hodge in 1960, many wondered if the OCS could

survive. Ken Shores, an OCS artist-in-residence, became director and renamed the

institution the Contemporary Crafts Gallery (CCG), remodeling the building with a

collection of new diverse crafts that were both functional and conceptual. The CCG created

the Craftsmen in the Schools project to help educate the quickly expanding population of

young artistic students. The American Craft Movement that was in full swing presented a

variety of exhibitions from an eclectic art community with a worldview of global influence

and conceptualism (Museum of Contemporary Craft, 2008).

By the mid 70s the CCG was significantly helping make up for the lack of gallery

space in Portland, accommodating the works of over 175 craft artists. This decade also

introduced a new outdoor food and craft market to the city. It was modeled after the

Saturday Market in Eugene, Oregon where artists Sheri Teasdale and Andrea Scharf had sold

their work and identified an opportunity for a similar market in downtown Portland. They

received grant money and a large enough lot area to sell booth space for $3 to each vendor

interested in participating in the new co-op known as the Portland Saturday Market. The

institution moved to its current location under the Burnside Bridge in 1976 and quickly

expanded as artists competed fiercely for the best lot spaces, eventually extending its hours

of operation to Sundays as well (Beal, 2008).

Meanwhile Gordon Smyth, an interior designer interested in emerging artists, took

over as director of the CCG during the 1970s. He established its formal residency on

Corbett Ave and carried on its role as a social hub for artists and collectors and a place to

feature exhibitions. In 1978 the CCG director position changed hands again as Marlene

Gabel stepped in to lead the institution through a variety of changes over the next 20 years

(Museum of Contemporary Craft, 2008). By 1979 the ACS had also outgrown its space and

moved onto a 7-acre orchard as the Oregon School of Arts and Crafts, offering more

programs and art forms with which participants could experiment (Beal, 2008).

In the 1980s the Northwest had become the glassmaking center of the nation and

Marlene Gabel brought a series of annual glass exhibitions to the CCG and organized group

shows. Portland State University received the Glass Shack Workshop in 1972 and taught emerging artists a variety of techniques for this medium. In 1987 the fiftieth anniversary celebration of CCG was celebrated in conjunction with the publication *3934 Corbett: Fifty Years at Contemporary Crafts* by Jane Van Cleeve. Gabel invited artists and collectors to guest-curate exhibitions that were co-hosted by a various city institutions.

During this time craft began to experience an identity crisis in the midst of a shifting market, changing the direction and style of craft organizations such as the CCG. The CCG started to become more professionalized and increasingly weighed down with exhausting programming work, focusing less on education and more on promotion and marketing. It launched more craft shows and established a less personal relationship with participants (Museum of Contemporary Craft, 2008).

Meanwhile the OSAC grew to receive accreditation for its classes in 1988 and in 1996 it became the Oregon College of Art and Craft. Three years later it began hosting biennial celebrations that showcased the work of regional artists and encouraged them to exercise their creative and intellectual potential. The school's president Bonnie Laing-Malcolmson claimed "The Arts and Crafts movement was a reaction against industrialization; in today's technological world the perpetuation of fine hand craft is equally important to keep us in touch with our creative minds and hands"(Beal, 2008, para. 22). OCAC's Studio School continues to educate a large population while incorporating modern techniques such as digital work into many of its classes (Beal, 2008).

The 1990s were a particularly challenging time for the CCG largely due to the hazy boundaries between art and craft, but the practice of craft proliferated despite its lack of

good programming and education as many commercial contemporary galleries surfaced around Portland. The CCG continued to push through changes as David Cohen succeeded as director in 2002, changing its name to the Contemporary Crafts Museum and Gallery and moving the organization to the Pearl District in Northwest Portland. The building reopened as the Museum of Contemporary Craft in July 2007, proudly maintaining "craft" in its name while so many other institutions have recently been removing it (Museum of Contemporary Craft, 2008). It also added "museum" to its title as a way of representing its impressive and permanent collection of craft goods, and it continues to maintain its original goals as stated on the website: "to present excellence in contemporary craft, to support artists and their work, to connect the community directly with artists, to deepen the understanding and appreciation of craft, and to expand the audience that values craft and its makers" ("A Seventy Year Legacy", 2008, para. 3).

The Artists in the Schools program also expanded so much that it was absorbed by the Regional Arts and Culture Council. Portland's Saturday Market, now 35 years in existence, hosts over 400 vendors and 15,000 visitors on a Saturday and has revitalized the area around it which includes Skidmore Fountain and the site of old downtown Portland. It continues to run like a co-op with its members voting on the acceptance of new vendors and charging sales fees and may soon relocate to accommodate its ever-growing status (Beal, 2008, para. 17).

Contemporary Craft in Portland

Local contemporary craft is seen not only in guilds but through modern institutions that allow people to explore unique styles and innovative techniques, and the craft

philosophy extends into artisanal food, small businesses and locally-made products and fashion. As Namita Gupta Wiggers claims, "People have a desire to get back in touch with doing things manually". Our modern culture has revived everything from knitting to farming in an urban context" (Skinner, 2008, para. 9). Traditional craft is still very much alive, however, and one can find a niche for his or her craft through a variety of local craft groups such as:

1. Art in the Pearl Fine Arts and Crafts Festival

2. Columbia Basin Basketry Guild

3. Creative Metal Arts Guild

4. Glass Art Society

5. Guild of Oregon Woodworkers

6. Local 14 Art Show and Sale

7. Association of Northwest Weaver's Guild

8. The Millstream Knitting Guild

9. The Northwest Woodworking Studio

10. Portland Bead Society

11. Northwest Designer Craftsmen

12. Oregon Ceramics Association

13. Oregon Glass Guild

14. Oregon Potters Association

15. Portland Handweavers Guild

16. Salem Fiber Arts Guild

17. Studio Art Quilt Associates

18. Willamette Ceramics Guild

19. Pacific Northwest Sculptors

20. Rich Glass

The following is a list of the types of national associations, guilds, and fairs available in Portland:

1. American Ceramic Society

2. American Craft Council

3. Craft Organization Development Association

4. Craft Emergency Relief Fund

5. The Furniture Society

6. Glass Art Society

7. Handweavers Guild of America

8. National Council on Education for the Ceramic Arts

9. Sculptural Objects and Functional Art

10. Society of North American Goldsmiths

11. The Studio Potter

12. The Woodturning Center ("Links", 2008).

The bulk of actors in Portland's arts and crafts sector include owners of craft supply outlets, local authors of craft books, professional artisans who sell through markets, fairs and collectives, and crafters with home-based craft businesses. Many also sell their handmade wares to the global community through the web-based store Etsy.com. This recent online shopping phenomenon has allowed many local artists to make or supplement their income by expressing their passions and creativity through their crafts. The vision of Etsy is a new economy in which people "buy, sell, and live handmade" and the marketplace not only

enables people to make a living making things but also attempts to establish a connection between buyers and sellers ("Etsy: About.", 2008, para. 4).

Portland's Saturday Market continues to thrive as a popular hub for artists, performers, locals and visitors on weekends. Often times those who sell at Saturday Market are also active in festivals such as Last Thursday in the Alberta neighborhood or First Thursday in the Pearl District of downtown Portland. Trillium Artisans is "an innovative, green, nonprofit community economic development program that empowers artisans and actively connects them to markets" (Scripter, 2008, para. 1). Crafty Wonderland is another popular event at which various local crafters can market their items. Super Crafty is an example of a craft collective that has taken off in the city, and the Portland branch of the Church of Craft is a weekly meeting place for those who are interested in DIY (Do It Yourself) craft, learning techniques that help them make products to enjoy themselves or sell to the public (Beal, Nguyen & Pitters, 2005).

Literature Review

As Heying, Ryder, and Eller have noted, large-scale mass production is seemingly going out of style in Portland, Oregon as changing characteristics of local sectors are demonstrating a shift toward an artisan economy that fosters craft-like qualities of production. More evidence of this change can be found in contemporary publications that follow the unique trends changing the face of the modern-day economy.

"Is it Art? Or is it Craft?" by Marjorie Skinner describes how the role of craft has changed over time, formerly seen as a functional object rendered artistically by a skilled craftsperson but increasingly becoming non-functioning and challenging the distinctions between what is art and what is craft. The challenge for many crafters has become preserving

and reintroducing the past into a relevant context since, as the article states, "context is everything" (2008, para. 5).

In "The Importance of Story" reporter and trend seeker Lynn Casey noted that stories add substance to everyday challenges, enthrall with the range of human experience, and add texture to objects in our lives. With the rise of the internet, simple commerce has become a vacuum where real touch and real time is scarce. Vendors who provide a story with their products will thrive as the "left brain"-dominated era of the Information Age is coming to an end. We are entering a world of "right brain" qualities where inventiveness, empathy and meaning predominate. The challenge for producers is revealing the inspiration and passion behind the design and translating that for the consumer.

As Casey pointed out, the popularity of Etsy speaks to the consumer's desire to make a connection with the creator and add a sense of humanity to the exchange (2008). Further referencing the trend, Andi Kovel's piece "The Cunning of Craft" describes how in the ever-expanding design world she and her studio, Esque Studio, hope to create original, conceptual and content-based pieces building from the resurgence and renewed interest in craft and a recent marriage between art, craft and design. At Esque, objects achieve souls, create profound sense of belonging, and have individual attributes that reflect history, locale, or culture. Kovel believes Esque is helping lead the movement of attaching craft to function to fine art, disbanding the notion of craft as kitsch. Objects should be used and handled, inspire thoughts and ideas, make us feel connected. They should feel authentic and tie together our past and future (2008).

"Handmade and Proud: What's behind the resurgence in knitting, sewing, and making your own stuff?" by Jamie Passaro explores the resurgent interest in domestic crafts among the new generation of crafters who have taken traditional crafts and redefined them

with new styles and unique modernity. Domestic craft has become hip and no longer simply a woman's practice born out of necessity. "The impulse to make things today seems especially anachronistic at a time when we can buy just about anything for less money (and in less time) than it would take to make it" (2008, para. 3). The article points out that craft has taken off as a national trend. Reportedly the sales of Singer sewing machines have doubled since 1999. According to the Craft Yarn Council, between 2002 and 2004 the number of twenty-five- to thirty-four-year-olds who are knitting and crocheting increased by more than 150 percent. Etsy, popularly known as the eBay of craft, reports that it has 300,000 members, 50,000 of whom are sellers. It also reports that in the two years it's been in business, one million items have been sold from its site, and most of these things are either wearable or for the home (2008, para. 5). **"**Call it the new wave of craft, domestic craft, domestic arts, or the new domesticity. Some link it to the third wave of feminism, to the same DIY (Do It Yourself) philosophy found in punk rock and its three chords, or to the Arts and Crafts movement of the late-nineteenth and early-twentieth centuries" (Passaro, 2008, para. 6). Like Susan Beal, many people see domestic craft as an important piece of women's culture. Beal also attributes the recent resurgence of interest in domestic crafts to the fact that a lot of twenty and thirty-somethings spend so much time at their computers that they feel disconnected from that "warm and tactile feeling of working with their hands." She also recognizes the expanding mindset of dissatisfaction with consumer culture and unethical practices seen in mass-production (Passaro, 2008, para. 15).

Dennis Stephens, a doctoral student at Columbia University's Teachers College, analyzes craft culture on his blog "Redefining Craft" and points out that DIY craft is a way of confronting mass-market consumerism and cultural homogenization. Some say the craft

renaissance is guided by the same sort of yearning and philosophy that drove the Arts and

Crafts movement, only instead of protesting industrialization, today's crafters are protesting

technology and globalization. Yet, consistent with the Arts and Crafts movement, there's a

feeling that a beautiful or interesting object made by hand by a skilled craftsperson has an

honesty that mass-produced objects can't match (Passaro, 2008).

Diane Gilleland (a.k.a. "Sister Diane"), organizer of the Portland Church of Craft,

says "There's a certain power in making with your own two hands the things you want in the

world" (Passaro, 2008, para. 19). She notes a sort of rebellion against the hardworking, 9 to 5

lifestyle of the baby boomer generation as part of the conscious lifestyle choices made by

today's crafters. Curator Namita Wiggers refers to this as a "cache of avant-garde" as she has

been thinking about the dramatically different relationship with craft experienced by women

today compared to those in the past. She sees how DIY crafts reflect nostalgia for traditional

craft and a yearning to reinvent the tradition in a way that often combines the craftiness of

the seventies with the irony of Americana of the fifties. Essentially people are proudly

returning to the practice of making things with their hands and feeling proud about their

crafts (Passaro, 2008, para. 32-33).

As discussed in the article by Jane Savage in *Arcade*, designers are working hard to

give clients and brands a "competitive advantage in a sea of sameness" (2008, para. 5). In

response to designs that have led to the production of unsafe vehicles and permanent

garbage that is added on to our landfills, many companies are working to institutionalize

sustainability. Nike, for example, has embedded environmental sustainability into the ethos

of its "Considered Design". Cameron Sinclair, founder of Architecture for Humanity and

author of the book *Design Like You Give a Damn,* seeks to improve lives through what he calls

"design for the real world" by incorporating innovative, practical, humanitarian aspects into sustainable design. Oncologist Karl-Henrik Robert developed The Natural Step framework after investigating root causes of childhood cancers, and the organization guides a variety of businesses, communities, and leaders in creating solutions and models that put them on a more sustainable path to the future. The framework builds from principles of Native American wisdom which views the act of creation as a sacred, powerful gift designed with mindful intention.

Kelly Walker, editor of *Arcade*, discussed this trend with Bill Fritts, founder of Intelligent Design and SOLIDCORE which create sustainable solutions in furnishings and interiors. Fritts pointed out that there is a rising interest in the idea of making "purchasing decisions that are not throw away". He claimed that we are in the early stages of transformation of the consumer consciousness and are experiencing a growing desire for well-designed solutions that eliminate the need for constant replacement. According to Fritts, embedded stories are effective and help give a deeper meaning and multilayered connection to the exchange. With regard to the current trend and interest in craft, he noted how craft links together people, material, and place and allows the consumer to sense the hand of the person who made the item. It is even possible to see inconsistencies in the craft which give it personality. This allows us to reach back in time to pre-industrial revolution when everything was unique and individual. The mechanization of the past 150 years in our society has created a disconnection between objects and consumers, and modern economies are separated from craft and its history.

Now we are seeing a vertical growth of design worldwide which Fritts attributed to the fact that art and design have been merging. "Art is an expression colored with the story

of an inspiration" and content is increasingly embedded in product design connecting with original craft-based-art that was initially created for the wealthy by artisans hundreds of years ago. This content adds depth and allows us to experience design on a more profound level.

Fritts sees greening as absolutely necessary for the survival of the planet and with every product designers need to consider all aspects of the "cradle to cradle" cycle. Viewing only form-creation or function-creation is "outdated and uninformed", according to Fritts, and designers hold the key for what gets produced and eventually purchased and turned back into raw material. The time has arrived when a commitment to working for people and on projects that incorporate green principles can be profitable and provide competitive advantage. Combined with community interaction this leads the way to a life worth living.

These publications reveal a resurgence of artisan-like attitudes like, for example, that adding story and preserving the past through the craft adds to its appreciation and inherent quality. More artistic expression, variation and meaning indicate the intervention of the designer and highly valued is the passion and sense of humanity that becomes translated to the consumer. A greater connection between the producer and patron establishes more trust. People are drawn to products that are locally distinct and authentic. Enterprises are increasingly self-reliant and democratic in circulating wealth, encouraging innovation and improvisation, and outlets like Etsy allow new producers low barriers to entry. Increasingly popular aspects of the moral economy include complex systems in which designers are thinking about their work, waste and use as a way to reinvest in the social and ecological infrastructure.

Methodology

In order to gain a broad range of perspectives on this unique economy taking hold of Portland, this research included document research, visits to craft outlets, fairs and collectives, and personal interviews with local artisans. Contemporary documents such as newspaper articles, trade magazines, websites, brochures, flyers and books published by local participants in the arts and crafts sector helped enrich the process of investigating current trends.

The study included four interviews that used semi-structured and open-ended questions that were designed to focus the interviewees on certain topics but not to lead them to specific responses. For example to gain an understanding of the importance the artisans placed on keeping design and production closely related they were asked to share their thoughts about scaling up their work with regards to the craft aspects of their work. Basic demographic information was also collected from each artisan. The goal of these interviews was to help determine how within this consumerist, mass market economy Portland's local artisans are finding success in marketing their crafts and financially supporting themselves.

The category of arts and crafts includes a very diverse range of products including paintings, furniture, tattoos and body art, graffiti, etc. Recognizing the value and potentially interesting stories behind all these parts of the sector it seemed logical to begin with a fairly small, narrow topic and expand from there. Thus the exploration of the crafty world within Portland begun with a focus on a particular medium: leather. The leather craft has survived through the appreciation of the traditional material as one known for its durability and ease with which to work. The varied characteristics of this craft and the artisans involved also represent a cross-section of the larger arts and crafts scene and the dynamics within.

The focus for this section is on the leather craft as a way of demonstrating artisan-like qualities and how they manifest in different ways that seem to be spreading throughout

the sectors of Portland's economy. The three interviews conducted within this field of work revealed the diversity in the approaches to this work that allow such a variety of participants to fall under their classification as artisans. The first interview with store manager Dave Hansen of Langlitz Leathers provided a unique piece of the research and helped demonstrate how the importance of story, as discussed in the *Arcade* article by Lynn Casey, can help drive the success of a particular business.

Portrait of an Artisan Enterprise: Langlitz Leathers

Located in Portland, Oregon at 2443 SE Division Street, Langlitz Leathers is a family-owned enterprise that offers high-end leather pants and jackets favored by motorcyclists. About 90% or more of the customer base is made up of bikers although cops also frequent the shop and about half the business transactions are with customers in Japan. Garments are approximately 1,000 dollars a piece (for a pair of pants or a jacket) and the reputation for their high quality has made Portland famous in the global biker community. The high prices are a result of the expensive cost of doing business today and have risen steadily in sync with the cost of motorcycles over the past sixty years (Korn, 2008).

Over the years Langlitz has enjoyed coverage in publications such as *Esquire*, *People*, *the Los Angeles Times*, and *the Wall Street Journal* which have helped to boost the popularity of the business. Among the list of celebrities that have donned the products of Langlitz are Clark Gable, Jeff Goldblum, Bob Dylan, Bruce Springsteen, and Neil Young, who has outfitted many friends, family, and members of his band for years. Members of the Portland Police Bureau have also long been patrons.

Bikers have frequently claimed that the garments are worth the money and wait, saying it's easy to recognize a Langlitz even without exterior labels. Some have even mentioned its armor-like qualities, suggesting that it commands respect in tough bars. Some

of the products include flight jackets, vests, hats and duffles, and the zippered sleeve seen in

the jackets is an element pioneered by the founder Ross Langlitz. Although Ross died in

1989, Dave has been diligently maintaining the standards and credo of high-quality that

makes Langlitz a business that is sure to stick around for a long time. Over the years people

have become more specific with their requests for pockets and details, making production

more time consuming, and they are increasingly willing to wait long periods of time for

custom-made products that even have the buyer's name sewn into them ("For Serious

Bikers", 2001).

All in the Family

Born in 1918 in Plymouth, Idaho, Ross Langlitz grew up mainly in McMinnville,

Oregon where he lost his right leg in a motorcycle accident at the age of 17. Despite being

told by doctors that he could no longer ride Ross defiantly drove his bike back to the

hospital immediately after his release. Upon marrying Mavis Edwards (aka "Pinky"), he

moved to Portland and in 1947 and founded Langlitz Leathers after making several jackets

for friends and relatives in his own basement.

In the beginning Ross supplemented his income by commercial fishing for salmon

and ran the shop while Pinky raised their three daughters, Nicki, Jackie, and Judy. Jackie

eventually came to work at the shop in 1971 and ten years later married current manager

Dave Hansen. In the mid 1980s Ross handed the business operation over to Jackie and Dave

while he and Pinky retired to the coast that they so adored.

Production at Langlitz has not changed much since Ross first opened up for

business. All garments are made on four cutting tables and eight sewing machines. Unlike

most modern businesses, custom-made jackets may be ordered, cut, and sewn in the same

room while the customer observes. The workers typically build six garments a day, and

depending on the number of orders on the log a custom set of leathers may be finished in anywhere from a few weeks to several months. Garments are usually cut in half a day and sewn over several days depending on the complexity of the design. One cutter and one seamstress are assigned to each garment as Langlitz has always rejected the use of assembly line production. The shop offers some stock leathers so that customers can try on both new and used garments. The products can also be altered or repaired at the shop and Langlitz will even buy back garments or sell them on consignment for the customer if requested (Langlitz Leathers Inc., 2007).

Upon visiting the outlet one will encounter highly personable customer service and a willingness of the employees to discuss the intricacies of the business. The value of carrying on the tradition of quality that originated when Ross Langlitz formed the company seems to resonate with customers and they can feel reassured by witnessing the immaculate attention and care given to each garment from the diligent workers inside the shop. Dave Hansen is known for his generosity in providing a wealth of information and offering a tour of the shop's facilities. While his wife still maintains much oversight of the office work she has basically retired while Dave applies his years of business experience to running the business and making the final decisions.

Philosophy

According to Dave, at Langlitz they "don't do things like a normal company would" and his own philosophy is "180 degrees out of whack from the normal world" (D. Hansen, personal communication, July 17, 2008). While other businesses find ways to cut corners and save money Dave emphasizes quality and customer satisfaction, claiming he would rather sell one expensive, high quality jacket to a happy customer than several cheap jackets that need constant repair or replacement. He expresses irritation at companies that cheapen products

in order to stay competitive and when products are so easily disposed of because they begin to show problems. He takes great pride in the company and reuses all the leather that is no longer of worth to the customers. He believes that most chain stores that are "here today and gone next week", although claiming to put customers first, simply do not give the same quality of customer service as Langlitz.

Dave's belief is that "the most important person in a business is not found in the office. He's found in the shipping department. The last person to touch whatever goes out the door is the one that can make or break the image that your customers are going to have" (personal communication, July 17, 2008). As a result, Dave is usually is the last person to inspect a garment in order to ensure that nothing has been overlooked and that he can take responsibility for any errors caught by the customer. He believes that most businesses are upside-down because they pay the least amount to people in the shipping department. This creates a sense of apathy among employees who see their jobs as temporary and unimportant and would not generate as many flaws if they held more valued, well-paying positions.

Customer happiness is at the peak of what Dave refers to as his "priority pyramid". While it is important to strike a balance between fashion and functionality, for this product fashion is usually at the bottom of the priority pyramid. Whenever someone orders a garment because they want to look a certain way Dave often ends up talking the customer out of it because the fashionable aspects often compromise the functional. This of course depends on the use of the garment, however; if a musician who has never owned a bike orders a leather jacket then he will receive a fashionable jacket. Traditionally every aspect of a Langlitz garment is designed for a specific reason pertinent to a motorcycle, and Dave is not afraid to tell the customer if the aesthetic preference is compromising function. A

serious biker who spends a lot of money on a good bike should plan to spend a fair amount

on high quality leather, and for someone like a cop it is necessary for it to function well.

No advertising budget exists for Langlitz and the role of its website is not to attempt

to sell any products to visitors. Dave says that it is important to have a legitimate website

that is accessible to customers and allows them to know exactly what they are getting. Dave

will happily accommodate the needs of each customer because as he says, Langlitz does not

have a one year or a ten year guarantee – it only offers a satisfaction guarantee (personal

communication, July 17, 2008).

Operation

Dave is not interested in contracting out the work for the business but the things like

zippers that are necessary to order are guaranteed to be top-of-the-line. The shop has had

hundreds of offers from international companies that want to sell their leathers and Dave

always responds with a polite note informing them that Langlitz will only sell U.S.-made

products. He doesn't mind competing with foreign companies because he says he knows

people will always pay more for garments made within the national borders, but he has

become increasingly aware of other companies fraudulently labeling their products as "Made

in the U.S.", an issue with which he feels helpless to compete.

Langlitz will not consider moving its operations or increasing production. It has

stayed small-scale for years and has remained resilient to drastic changes in the regional and

national economy. Dave claims that craft-based businesses are staying more resilient because

they are not increasing output and selling low. Overseas manufacturing becomes expensive

and with a tight economy a company runs the risk of encountering problems in shipping and

having to "eat" the money lost trying to correct the problem. When the overall economy is

going strong Langlitz usually enjoys a longer backlog of customers, but when it is weakened

they still have at least a one or two week backlog. The problem, states Dave, is that many companies climb while the market is plummeting and since they aren't looking out for years ahead they end up closing their production facilities. Growth without restraint gets a company tangled in the economy once the dollar weakens, which is why Langlitz maintains the same philosophy: stay level and don't worry about what the economy is doing. By keeping prices high, production low, and staying level, Dave says the company survives and its competitors face problems with their manufacturing overseas. If a Langlitz garment faces a problem during production, the problem gets solved immediately with the customer standing nearby. Everything happens in real time and within the building, a luxury lost if the production is far removed. As Dave sees it, while businesses are typically judged by revenue and profit they lose in an economic downturn; meanwhile Langlitz shines along with other companies that have stayed small and local and focused on making the product right. (D. Hansen, personal communication, July 17, 2008).

Langlitz has managed to find a way to expand not through employee numbers but through revenue by selling T-shirts which they now produce at about 15,000 per year. These are not manufactured locally so while the process doesn't utilize the capabilities of Langlitz production it still provides economic growth. Another helpful creation is Club Langlitz, a customer resource that allows the company to do what others cannot: provide a step-by-step visual depiction of the entire process of creating a customized product. Dave wants customers to feel they can talk directly to him about a problem, even refusing to allow the business to use an automated message system, and while local patrons can visit the business to personally check the progress of their orders Dave feared that the Japanese would feel this loss of connection when placing their orders. They are also paying three times the price for Americans due to the costs associated with customs and working with a distributor and

dealer. Therefore in order to give back to the Japanese what they lose from doing business overseas Dave created a webpage for each customer that displays pictures of the entire process of making a garment, allowing viewers to view everything from filling out the initial paperwork to loading the finished product into a truck and driving away. Although some doubted that this could be done, it is clearly a success for both the business and the customers who often add pictures of themselves wearing their new leathers (D. Hansen, personal communication, July 17, 2008).

Subsequent interviews with other leather artisans in Portland provided more variety of perspectives and experiences regarding the work of a leather artisan within Portland's local economy.

Talitha Leather

Nate Bagley, owner of Talitha Leather, makes a broad variety of affordable and high-end courier bags, purses, journals, wallets. He became involved with his craft by making artistic gifts for friends and family, discovering that leather was a medium with which he enjoyed working and could use as a way to get involved in art. He began to realize he could sell his products, so after working as a carpenter and framer for ten years he transformed his craft into a source of supplemental income while working as a counselor for a mental health agency and managing his own private practice in counseling. While he designs bags that are high quality and therefore more expensive, he has expanded his product line by experimenting with a variety of affordable products as well.

As someone in complete control of his own business, Nate says he is not yet big enough to hire anybody on. His ultimate goal is to increase his size to the point of being able to create jobs for people in other countries using fair trade practices. His friend sometimes helps him with big projects and he would consider having others with good designs to help

with the production but would like to keep his product basically the same. Nate says he has no set working hours and since the summertime is slow for counseling with kids being out of school, he sells more during that time.

Nate likes to get a lot of preparation work done ahead of time and work on his sewing while watching television or relaxing. The personal, social, and occupational parts of his life overlap a lot, as everything is done from his home. He says he thinks boundaries are fascinating issues, because on some level it is good to have things blend together but sometimes it is best to keep work separate from leisure time and take lots of breaks (personal communication, July 17, 2008).

Nate sells his work through his website (www.talithaleather.com), at Saturday Market, at First Thursday in the Pearl district, and at Last Thursday in the Alberta neighborhood, and says he used to sell at coffee shops as well. He claims that about half of all his business is made through word of mouth, so he provides Talitha Leather vouchers to customers that have been referred for 10% of the amount spent. He also offers free shipping for all products bought online (Bagley, 2008).

At Saturday Market about half of Nate's buyers are visiting from outside Portland, and many people from Southern California buy his work since he has friends there. He knows many of his customers through friends that have spread the word about his high-quality products. About 30% to 40% of his products are custom-made and the backlog of orders tends to vary from time to time. He claims that his products differ from mass-produced items because they are durable and last more than a couple of years. He uses real leather while many competitors use cardboard inside thin leather encasing, and many of his courier bags fall into a unique niche with hard to find, retro-looking styles (personal communication, July 17, 2008).

Nate would like his business to provide a quarter to half of his income, and he would like to develop a more streamlined process with a steadier flow of orders. He says he does not have a lot of ambitions, however; with a baby on the way he will probably work more from home making leather products and focus less on counseling. His current output is about one purse, three wallets, and half a bag per week, so he thinks twice that amount would be ideal. He would probably not partner with a major outlet or manufacturer since he believes the product would change and the quality would be compromised, and if it involved paying employees less than he thought they deserved there would also be a conflict of morals as well (personal communication, July 17, 2008).

Above all, Nate's top priority is ensuring quality and functionality. As stated on his website, "each product is designed and constructed with the goals of simplicity, quality, functionality, and style in mind" (Bagley, 2008). He classifies himself as somewhere between an entrepreneur and an artisan, saying he has good business sense but considers himself as more of an artist with leather. He wants to make things that are "good and beautiful" and identifies with all definitions of artisan: someone who works with the hands, head, and heart, desires to do a job well and for its own sake, and applies skill, judgment, improvisation and passion to his work (personal communication, July 17, 2008).

Nate seeks to make everything out of cowhide, using the leather as a byproduct so there is no waste, and throws away very little leather. He has found that using recycled materials has sometimes made products difficult to sell, but he tries to keep them as simple and natural as possible. He says he would not use leather from an animal killed primarily for its hide. He believes staying local has economic and environmental benefits since it cuts down on the use of fossil fuels and keeps the money circulating locally, but he would like to buy internationally if it would benefit communities that need more economic improvement

than Portland. Nate says he would also not make products used for sexual interaction even though he has gotten requests, because he believes that would not foster healthy relationships and healthy sexuality. He has on occasion talked someone out of buying something if he knows the person can't really afford it and may even lower the price. He tries to give his customers space and avoid pressuring them to buy anything, admitting that he sometimes feels conflicted as someone that has been inspired by an ethic of anti-consumerism.

Nate has lived in Portland for five years and at least half his sales are in the city. He says that he doesn't really see himself as competitive with others doing similar work here and that his products are unique enough to have their own market and appeal to a particular culture. He engages in a lot of collaboration with other artists which often helps him gets references or custom orders. He feels like part of a community within craft fairs and Saturday Market and enjoys hanging out with others in Portland's art community. He says he is not really involved in the local community otherwise, although counseling sometimes feels like a sort of community service he can contribute.

Living here has made Nate more environmentally conscious so he wants to stay local and use sustainable practices. He says that Portland is definitely isolated from the rest of the country but people nationwide are becoming more aware and more likely to buy with an ethic. He finds that most people seek out products but some see the qualities that are in line with their ethics and buy impulsively. He also notices that many prices of handmade goods are fairly competitive with those in the mass market, so artisans are increasingly having an easier time selling their work (personal communication, July 17, 2008).

Twilight and Filigree

Elizabeth Robinson is the owner of Twilight and Filigree and uses her creative spirit to infuse unique and beautiful qualities into her leather products. About five years ago she entered the world of leather with her bookbinding and eventually began experimenting with making hats and costume pieces for festivals. In the summer of 2007 she completed her first leather purse and has since been creating bags with the intention of selling them. Her original goal was to sell her products on Etsy and acquire the proper equipment to make and sell her goods, and she now has a vision to broaden her selection of products, sell them in more than one store, and finish a website for her business.

Elizabeth's bags include purses, shoulder bags, and laptop bags and she also makes a variety of accessories such as wallets, hats, and hand-bound journals. She ensures individual care throughout every step of the design, cutting, and sewing processes. Elizabeth creates many custom products and takes special orders and says her products differ from mass-produced because they are unique with detailed designs and an assortment of colors. She uses leather she has hand-picked from the Oregon Leather shop in Portland, each piece chosen based on its quality and color variations. She sells her work through Etsy, at the Last and First Thursdays, in a store called Frock Boutique on Alberta Street, and the Faerie Worlds Festival in Eugene, OR. She says she knows many of the people who buy her work through friends and family (personal communication, July 18, 2008).

Elizabeth does all her work at home, where each piece of leather (half a hide) is cut to produce a few bags and wallets. If the item has an appliqué she cuts and stitches it on herself. She generally tries to begin working by eight or nine in the morning at least five days a week and works at least five hours each day. This schedule is flexible depending on other life engagements and her level of energy. She claims that her work tends to increase before craft fairs and events and the time of year from mid-summer to Christmas is generally

busiest. She says she is on the internet probably about one and a half hours each day writing emails, searching for supplies that cannot be purchased locally (especially in bulk), checking Etsy and listing new items.

Making the creative decisions is very important to Elizabeth but she says that custom items are seen as more of a team effort. She feels satisfied that she can express her creativity through every step of the production. She says her personal, social, and occupational parts of life typically blend together as she does much of her business with some of her best friends and rarely has time for herself at home since work consumes much of her time there. She doesn't mind this, however, because her work excites her.

Elizabeth currently shares a house with three others and says she may consider finding a separate studio space soon. She believes producers should always strive to find ways to improve and would like to use more recycled leather, maybe offering wool as a leather alternative, as well as using all recycled paper products when shipping, doing paperwork, etc. She wants to donate a percentage of future sales to non-profit organizations and try to buy materials and supplies that are produced locally as much as possible. At this point she does everything for the business but would consider contracting out the work that she finds arduous and time consuming, saying she would enjoy having the extra help and advice. She believes her optimum business size would include two other workers: a bookkeeper and a seamstress/cutter. She would like to have a full line of readily available products in both leather and wool felt and wants to offer more variety for her accessories, possibly producing costume pieces, and reach a point where she is financially comfortable and happy. She does not want to sell to the mass market because she believes the products would lose the handmade feel if mass produced (personal communication, July 18, 2008).

Elizabeth draws her inspiration from the natural world, art nouveau, Asian art and fairytales, and what she refers to as the "magic" of leather to provide everyday comfort and function. She got into this work to fulfill her creative spirit and feel in charge of her life again. She considers herself both an artist and entrepreneur, feeling this is currently a creatively rewarding venture but hopes for it to soon be a financially rewarding one as well. She feels that she naturally fills a unique niche since few bags use heavyweight leather, rich colors, and detailed appliqués in a shoulder bag style. Her closest competitors are usually not as high-end or do not offer the shoulder bag styles in leather.

Elizabeth simply loves working with leather, she says, for its feel, look, and strength. She believes it is completely unlike any other material with its natural variations of texture, thickness, and dye absorption. She also has a deep respect for the origin and feels this when working, from choosing the hide to cutting and stitching. Because of this she tries to keep waste to a minimum. She sometimes has to leave in marks and scars, even though she tries to hide them, because she so highly values the beauty and origin of leather. She is also a huge animal-lover and as a former vegetarian still sometimes struggles with the idea of using animal products. However she feels in some ways she is honoring the life of the cow, for since the animal was killed for its meat the leather is a byproduct and this is a way of using as much of the animal as possible and leaving little waste. She claims that she doesn't like using vinyl since it is not as durable and is made from petroleum which is non-renewable.

Elizabeth says having a "feel for the work" means that intuition and having an open inner vision join together with the hands and eyes to create the work. She feels you must follow your heart and intuition in order to be successful in creating something that makes sense to you and others. She highly values being honorable, truthful and feels very strongly about doing the best she can with her work because, as she says, even if a customer doesn't

notice that she cut a corner during production it will always drive her crazy. She believes that to be successful one must be honorable, knowledgeable, experienced, intelligent, and courageous, and she strives to hold these qualities (personal communication, July 18, 2008).

Since moving to Portland in 2002 Elizabeth has enjoyed its varied creative scene and its focus on reused and recycled materials, vintage looks and handmade looks. She thinks there are lots of interesting, courageous artists with great ideas in Portland and the scene is an inspiring reminder to follow her heart and pursue her ideas. She feels part of Portland's community of artists and crafters and has been especially active in First Thursday in the Pearl District and Crafty Wonderland. These, along with Etsy, the Faerieworlds Festival in Eugene, OR, and the Alberta neighborhood store through which she sells, have greatly impacted her work. She believes people are friendly, supportive, and giving, and that most encounters are great contacts for networking and sharing information, favors, advice and encouragement. Although she is not very involved elsewhere in Portland's community, she feels like this way she is getting to know more people all the time and is learning the importance of being outgoing and positive. She hasn't collaborated much with other leather artisans but discusses new ideas and problem-solving with her artistic customers who want custom bags. She feels only a small sense of competition with other leather crafters and bag makers because her work is so unique.

The advantages that Elizabeth identified for living in Portland include the wealth of venues such as street fairs and Saturday Market that are available through which to sell work. A disadvantage may be that there are so many other crafters, including some that use a lower quality which buyers don't always see. Elizabeth pointed out that Portland and the Northwest are already known for having such independent styles and the up-and-coming trends in areas like music, fashion, and crafts that this may add to the intrigue of artisans

producing in the area. She also does not feel affected by the presence of large firms in the

area that may do creative work similar to her own (E. Robinson, personal communication,

July 18, 2008).

The fourth interview with a non-leather artisan is an attempt to gain a broader

perspective in exploring the contemporary arts and craft scene in Portland. An active

member of the Etsy community, Alisa Timmerman provided her own unique profile as an

artisan supporting herself through handmade craft-making within the local community.

Zeldaloo

Alisa Timmerman, owner of the business Zeldaloo, makes soft-sculpture dolls and

toys from original patterns that are sewn by hand and with a machine. For long she had

wanted to learn how to sew her own clothes and she picked up some seamstress skills

because her niece wanted an imaginary friend brought to life in the form of a doll in order to

prove it was real. Alisa previously owned a gallery and a stained-glass shop but grew tired of

making and selling other people's work. Wanting to build on her desire to create her own

things, she moved to Portland from Detroit, Michigan about three years ago.

Alisa considers Zeldaloo her full-time job, using mornings to check her e-mail and

takes care of logistics, doing design work until the afternoon, and filling her evening hours

with sewing. All of her work is done from home, and she says this schedule keeps her on

task. Selling online and wholesale was her original goal, and now that she sells through Etsy,

at a few stores locally and in Ohio, at Saturday Market, and various other shows, she wants

to travel more and attend more shows which she most enjoys. Her work stays fairly

consistent but more seasonal items are produced around the holidays. Her customers consist

mostly of moms, younger male adults and grandmas, and she doesn't usually know

customers beforehand but likes to get to know them after they purchase from her. She takes

a lot of special orders for her products like her dolls, for example, which have many different color variations for eyes and hair (personal communication, July 19, 2008).

It is very important to Alisa to make the creative decisions, do all the work, have total control and have everything be her own creation. She has been influenced by the art scene at the university she attended in Detroit and the art and pottery scene in which her husband is involved. She tries to make things that are unique and affordable enough to reach a broad range of people, and she proactively positions herself to build a unique niche where she can sell products that can not be found anywhere else. While the internet has helped with business she tries to buy materials from locally-owned stores and get her ideas from family or friends or artists with whom she previously worked. She also claims that her personal, social, and occupational parts of life blend together and she often finds it difficult to maintain boundaries between them.

In five years Alisa would like to still be the designer-creator for Zeldaloo and making more art dolls that are high-end unlike many of the toys she currently makes. She supplies a lot of affordable dolls in order to make an income but would like to reach the point at which she can focus on doing this more as an art and not as what she relies on for her "bread and butter." She claims that double her current size would be ideal (she currently brings 75 to 100 pieces to each show and is always in production with about a two-to-three-week turnaround for each product). She would like to eventually partner with someone that has more business sense and can help with marketing and production, but she wants to remain in charge of the processes of design and production (personal communication, July 19, 2008).

Alisa creatively designates herself a "crafty-preneur." She is driven by the ethic to buy locally, use recycled materials when possible, and create a look that is totally different

from mass-produced dolls and toys. She doesn't even like using the same ideas or patterns twice. Even though most of her products are made for aesthetic purposes, functionality plays a role as many of the toys are designed to be played with. She identifies with all definitions of artisan and especially as someone who applies skill, judgment, improvisation and passion to her work, stating "I do what I like. It's hard to make something you don't like." She learned this while working for somebody else and producing stained glass that she thought was ugly (A. Timmerman, personal communication, July 19, 2008).

Having lived in Portland for three years Alisa has established herself within the local community of artisans and crafters. Alisa claims that pretty much all of her work in Portland is collaborative. She feels very active within Etsy and is involved in an art doll group as well as a plush group with over 100 members. This allows for great networking and monthly challenges for the group push the skill and creativity limits for the artists. She also volunteers at the Portland Women's Crisis Line and at a summer camp for those with disabilities which have influenced many of her color schemes and positive ideas. She says the independent feel of Saturday Market and the great artist support attracted her to this town initially, and the availability of outlets like Etsy and Saturday Market makes it easy for her to market and sell her work. She had been looking for work in the art community and started sewing as soon as she moved here, finding an amazingly supportive and creative scene here. She says a potential disadvantage for the scene is that it is growing so much that it is becoming increasingly structured.

Alisa does not feel affected by presence of large firms, however, and feels that people are getting out of the "Wal-Mart mentality" and now want things that are hand-made and different. She says the internet has really helped advance this movement which she sees

happening all over the United States, and believes that Portland is just further ahead of the

game than most areas (A. Timmerman, personal communication, July 19, 2008).

Results and Discussion

It is clear from the interviews that artisans may have very distinct approaches to their

work while still maintaining characteristics that classify them as participants in the artisan

economy. Common threads exist among them that present an alternative to production in

the modern economy. The participants have maintained qualities associated with locality that

allow them to use resources more efficiently, create shorter chains of accountability, build

relationships among other artisans and customers, and provide unique qualities of taste and

style. This kind of approach suggests that other markets may also benefit through wealth

creation and economic development as changes in characteristics of local production are

currently demonstrating a new direction for the national economy. This movement is most

evident through the trend of expanding artisans and their ability to maintain success during

an economic downturn.

The characteristics of Langlitz Leathers combine in a unique way to deliver an

example of an artisan enterprise that still maintains the undertones of a typical modern

business. Of the qualities associated with an artisan economy, Langlitz possesses enough to

demonstrate an approach very different from that of mechanized mass production. For

example, most of its products are hand made with individual care and are individually unique

to provide patrons with customized experiences. The products are designed for quality and

with the purpose of being appreciated over long periods of time. The processes of design

and production are closely tied together, often times allowing the customers to provide

design ideas and oversee production as all of this happens within the same building. In the

circumstance that a customer cannot visit the shop personally the entire process is

documented and visually represented through the online customer resource called Club Langlitz.

Dave Hansen's philosophy clearly demonstrates his emphasis on keeping production at a small scale so as not to compromise the quality of the products. He is determined to stay local and continue to operate his business from that building, refusing to contract out the manufacturing or move to a larger facility. He also values the ability to remain self-reliant so that any outside changes will not affect the business too greatly and he remains loyal to those with whom he has done business over the years so long as they maintain the same high standards of quality.

Some of Dave's perspectives revealed an interesting contrast between the characteristics of Langlitz and others who may consider themselves artisans. Langlitz, he says, is two things: a production facility and a place meant for a pleasing customer experience. Above all he sees himself as a salesman offering, in his words, happiness rather than leather jackets. The business is not an outlet for creativity or artistic expression, and Dave does not relate it to anyone involved with Saturday Market and in fact sees most of the activity there as a hobby rather than a business. He was not particularly responsive to the term "artisan", openly admitting that he does not have an artistic bone in his body and certainly does not view his work as art. He finds it important to keep business separate from artistic endeavors because he thinks that immersion within a hobby as work can actually harm one's artistic side. Because Dave is around leather and the motorcycle culture all day at work he wants to be far from it outside the shop, a desire that seems especially reasonable since he actually experiences allergic reactions to leather and as a result must remember to take medication throughout the day (D.Hansen, personal communication, July 17, 2008).

As important as it is for Langlitz to stay in place, Dave claims that his business is not part of the local market. Customers do not typically patronize Langlitz simply because it is in the neighborhood; since the products that they offer are so unique and geared for a particular culture people often come halfway around the world to buy Langlitz garments. Dave said he has no interest in trying to convince the local market to buy from Langlitz especially knowing that in the midst of a sluggish economy people are cutting back on buying luxury items. Customers tend to be those who expect to pay high prices that reflect the quality of the products, and when the national economy is flailing Langlitz tends to pick up more international business. Even though Dave likes living in Portland he feels he has to tolerate the way the city treats businesses and says he feels obligated to keep Langlitz local because the roots of the business are firmly planted in the city. However he proudly displays the name Portland on many of the products, including the various accessories and shirts that have become popular in Japan.

Another unusual quality of Dave's management style is his apparent lack of consideration for the employees. He admits that one of his downfalls is that he is not the most "employee-friendly person in the world" and is much more concerned about the happiness of his customers. He says that employees are not easily fired but many have quit because they feel they are not paid enough. According to Dave if they do the work to make the customers happy, there is no problem, but if they take advantage by trying to kill time at work and are "whining instead of working", they simply will not be paid as much (personal communication, July 17, 2008).

While many of today's artisans choose to operate based on their attitudes towards the environment, human rights, animal rights, etc, Dave maintains that the quality of his products remains his only guiding principle. He has never been asked about the ethical

practices of the two or three tanneries from which he receives the leather and prefers to

assume that they are operating in a legitimate manner. Dave says that since the price of

leather has increased since U.S.-based tanneries have been forced to raise their pollution

standards, he sometimes has to explain the high prices to customers but is insistent on

maintaining the established relationships with the same tanneries as long as they maintain

consistently high quality (D.Hansen, personal communication, July 17, 2008).

Langlitz Leathers provided an interesting profile of a business that is highly

structured and brings in a gross income of at least $100,000 per year, which is more like a

typical modern business than other artisan enterprises. Its steady level of success during

economic turmoil suggests that the conservative approach to quality and slow growth may

provide a positive model for other producers searching for alternatives to the contemporary

approach. The other interviews further supported the idea that the model is not a "one size

fits all" solution for firms and there exists a high level of variation among these local artisans.

Talitha Leather is much different from Langlitz as a self-employing, very small-scale,

home-based art-inspired endeavor providing supplemental income. The views that Nate

Bagley expressed sufficiently fulfilled the expectations for an artisan world view, including

using a very loosely structured work life, a collaborative approach to business, and an artistic,

creative outlook for the work. Another quality that seems part of the emerging artisan

economy includes a mode of production that is inspired by an ethic of humanitarian ideals

and environmental consciousness. Twilight and Filigree follows a path very similar to Talitha

Leather, and like Nate, Elizabeth Robinson strives to use sustainable practices and places

great emphasis on locality. As leather artisans both expressed a deep respect for the source

of the leather and a desire to produce goods that are unique and very high quality. Unlike

Langlitz, both feel that their personal, social, and work lives blend together, that they greatly

benefit from others in the artistic community in Portland. A major difference between Nate and Elizabeth is that Nate uses his leather work to supplement the income from his counseling work while Elizabeth focuses on her leather work as a primary source of income.

Zeldaloo presented a perspective from outside the leather community but reflected qualities that are consistent with the artisan approach. This supported the idea that while leather artisans share characteristics as a result of working with the same medium, many of their qualities are typical of most artisans so they were generally representative of the entire artisan community. Like many in Portland's arts and crafts sector, Alisa Timmerman feels she has greatly benefited from the support of the creative artistic scene here. She has also built a unique niche for her crafts and would like to experiment with more artistic techniques, prefers to remain small-scale and in charge of design and production, and creates social ties with many of her patrons.

Despite the differences between each of these artisans, especially those that set Langlitz far apart from the smaller-scale participants of this study, these artisans share a common thread that addresses the major point of this research: they seem to be part of a broader phenomenon of changes in the characteristics of production that has taken off nationwide. Through reaching a reliable customer base and maintaining a consistency in high-quality production the participants all indicated that they are unaffected by changes in the economy and the presence of large firms that may act as competitors. Dave Hansen noted that the success of craft-based firms hinges on their low output and small size because they can easily fix the problems in their production and remain self-reliant so that they don't get tangled in the economy or financial problems of other firms. He maintains that by keeping prices high, production low, and by staying level, a company can survive while large firms that move their manufacturing overseas are struggling. Small firms can enjoy the luxury

of things happening in real time and in close proximity so that problems are easily resolved. Although he didn't attribute his success to living in Portland specifically, Nate Bagley pointed out that Portland is a unique in that people here tend to buy more with an ethic. He sees this happening nationwide, however, and has also found that problems with the national economy and the weakened dollar have allowed prices of handmade goods to become fairly competitive with those produced in the mass market.

Elizabeth Robinson also identified a unique environment in Portland that allows for many outlets from which to sell handmade work and believes that the trendy, independent reputation of the region has helped artisans sell their wares. Although she seemed to attribute much of her own success to the supportive nature of this region, she indicated that the unique and high quality aspects of her products have protected her from the competition of larger firms doing work similar to her own. Alisa Timmerman also does not feel affected by the presence of these firms and further claims that while Portland has a head-start on this movement, people nationwide are outgrowing the "Wal-Mart mentality" and being drawn toward the handmade and unique.

The historical information from the literature helped to characterize the patterns we see today. It is clear from the literature that there is a revival of the Arts and Crafts Movement happening within Portland. Just as this 19th century movement attempted to improve aesthetic standards and working conditions throughout the United States and Britain, the contemporary trends reflect a search for higher quality in designs and morally-driven practices. The alienating factory work that characterized the industrial age corresponds with the feelings of disconnection dominating today's technology-driven, globalized era. Our society is again expressing a desire for authentic, meaningful styles in products. The tradition of homespun, handcrafted goods is once again appealing to the

public and people are again yearning for contented labor through which they can truly express their creativity and humanity.

Just as Steven Adams described in his book, handcrafted products continue to present the dilemma that they are bound to be more expensive and therefore exclusive to a large consumer base. This continues to be a point of contention for those artisans attempting to make a living while expressing their talent and creativity through a supply of high-end products. The historical overview also showed that craft has transformed in meaning over the past several decades and that the worldview of crafters has been dramatically influenced by this changing identity of craft. The ideological divide resulting from the tension between the roles of functional and non-functioning still exists today and resonates among the variety of artisans active in the craft community. As the purpose of craft shifted away from traditional, more functional uses and more toward artistic expression, it became a uniting force for different cultures across the world from one another. Noted in the literature is the paradox that the intervention of western ideals and customs are often necessary in preserving indigenous crafts, still demonstrating the value placed on maintaining these pieces of art and their traditional means of production. Craft also became elevated as a more professional endeavor that was seen as marketable and best placed in the hands of the skilled and well-trained designers, contributing to the problematic nature of craft as a high-end product available mostly to the wealthy community. We are now witnessing how craft has penetrated other markets such as food, brewery, and fashion as a way of appealing to the desire of people to purchase things that have been created with care and with the human touch.

Contributing to an understanding of the success of the craft movement in recent decades, Beal's writing showed that it can be largely attributed to the women who so highly

valued the advancement and education of arts and crafts in America. It has allowed for

resistance and expression, as demonstrated through the progress among women who have

taken their crafts and turned them into their sources of income.

 They pushed for effective practices and policies that would bring the artists and the public

together, and as demonstrated by the expansion of the various programs in Portland, the

support of the government and new institutions is a key element to the realization of artistic

and educational goals. The Museum of Contemporary Craft is a fine example of proudly

carrying on the tradition of craft. The various guilds in the region have also helped to keep

traditional craft alive, and it is clear through the artisan-like qualities in other sects of the

market that the craft philosophy is radiating from a diverse range of cultural outlets. The

literature also suggests that the advancement of the craft movement was influenced by the

changing views and attitudes of those inspired by eastern and Beat Generation ideas.

The literature that discusses contemporary trends revealed that a new wave of

consumer consciousness is helping drive designers to find innovative, sustainable solutions.

The new artisan approach seen in Portland's unique economy is rising to meet the demands

of these new purchasing decisions. Helping to further explain the resurgence and increasing

popularity of artisan values in production, the literature explains that consumers are drawn

to the enthralling nature of stories that provide a connection to an object's creator. The

"right brain" qualities that currently characterize our society have revealed the desire for

authenticity, expression, and humanity in our exchanges. In response artisans have sought to

create objects that are inspiring, meant to be handled, and tie together the past and future.

Nostalgia for the power and warmth experienced through hand-made production

has apparently inspired many artisans to proudly return to the practice of craft. The statistics

in Passaro's article indicate that craft making has taken off as a national trend, and the author

suggests that this work has taken on an image of hipness, seemingly tied to movements of feminism, punk rock ideals, or other DIY, anti-establishment sentiments. With a touch of resistance the trend of domestic craft has resurfaced and rejected its former classification of women's work born out of necessity, confronting contemporary issues associated with a consumer culture driven by technology and mass-production.

The literature also indicated that, as a result of the clear shift in consumer consciousness, designers are finding innovative strategies and methods that are more ethically-driven and appealing to the desires of these purchasers. Many designers seem to be motivated by the apparent need to "green" products and help build a more sustainable path to the future. They are increasingly making products with mindful intention to help lessen their impact on the environment while infusing artistic elements to create objects that provide embedded stories and convey a deeper meaning for people than most products of a modern economy.

Conclusion

Based on the collection of reading materials and personal interviews addressing this topic, it is evident that Portland is setting an example with an economy increasingly driven by artisan-like qualities. The traditions and characteristics of the arts and crafts sector have greatly influenced today's artisans and are increasingly penetrating the city's major market sectors of microbrews, foods, cycling, and fashion. This may be a trend for the larger national economy which currently holds on to notions of economic development through the expansion of specialized industrial goods and services being traded to other regions.

This study may contribute to the understanding of the evolution of Portland's economy, and since the city has drawn much outside attention for setting such a high bar in planning, civic life and livability, it is quite possible that this movement will be reproduced.

This apparent movement is derived from the evidence of an expanding collection of artisans that are maintaining financial success during times of economic turmoil. Their unique approaches to production and exchange have helped explain how, in a global mass market economy that produces at all levels of quality and price, local artisans can find a market for their crafts and thrive. As an evolving consumer consciousness has greatly contributed to this shift, designers and producers are now facing the challenge of meeting the demands of purchasing decisions that are setting a new course for the future of the economy.

Works Cited

"A Seventy Year Legacy." About. 2008. Museum of Contemporary Craft. July-Aug. 2008

        <http://www.museumofcontemporarycraft.org/info_about.php>.

Adams, Steven. The Arts and Crafts Movement. Secaucus, NJ: Chartwell Books, 1987.

Alfoldy, Sandra. "Global Peace Through Craft: The Formation of the World Crafts

        Council." Craft Culture. 22 Sept. 2006. Craft Victoria. 21 July 2008

        <http://www.craftculture.org/archive/alfoldy1.htm>.

Bagley, Nate. "Handmade leather bags, purses, wallets, and journals." Talitha Leather. 2008.

        Sept. 2008 <http://www.talithaleather.com/>.

Bagley, Nate. Personal interview. 17 July 2008.

Beal, Susan. "A Short History of Craft in Portland." About. Sept. 2003. PDX Super Crafty.

        21 July 2008 <http://www.pdxsupercrafty.com/about.html>.

Beal, Susan, Torie Nguyen, and Cathy Pitters. Super Crafty : Over 75 Amazing How-to

        Projects. New York: Sasquatch Books, 2005.

Casey, Lynn. "The Importance of Story." Arcade: Architecture/Design in the Northwest

        26.4 (2008): 22-23.

"Etsy: About." 2008. 12 Aug. 2008 <http://www.etsy.com/about.php>.

"For Serious Bikers, It's Gotta Be Langlitz: Portland Family has Custom Leathers Market All

        Sewn Up." Portland Tribune. 22 June 2001.20 Sept. 2007

        <www.portlandtribune.com>.

Hansen, Dave. Personal interview. 17 July 2008.

Heying, Charles, Marianne Ryder, and Shanna Eller. Brew to Bikes: Portland's Artisan

        Economy. Portland, OR: Unpublished source, 2008.

Korn, Peter. "Q & A with Dave Hansen." Portland Tribune 19 June 2008.

Kovel, Andi. "The Cunning of Craft." Arcade: Architecture/Design in the Northwest 26.4

    (2008): 24-24.

Langlitz Leathers Inc. "History." 2007. Langlitz Leathers. July-Aug. 2008

    <http://www.langlitz.com/history.shtml>.

"Links." Resources. 2008. Museum of Contemporary Craft. July-Aug. 2008

    <http://www.museumofcontemporarycraft.org/resources.php>.

Museum of Contemporary Craft, comp. Unpacking the Collection: Selections from the

    Museum of Contemporary Craft. Museum of Contemporary Craft. Portland, OR,

    2008.

Passaro, Jamie. "Handmade and Proud: What's behind the resurgence in knitting, sewing,

    and making your own stuff?" Fall 2007. 12 Aug. 2008

    <http://www.oregonhum.org/handmade-and-proud.php>.

Robinson, Elizabeth. Personal interview. 18 July 2008.

Savage, Jane. "Design for the Real World." Arcade: Architecture/Design in the Northwest

    26.4 (2008): 20-21.

Scripter, Carl. "Trillium Artisans." 2008. 12 Aug. 2008

    <http://www.trilliumartisans.org/about/>.

Skinner, Marjorie. "Is it Art? Or is it Craft?: How Portland's Museum of Contemporary Craft

    Made Itself Modern Again." Portland Mercury 10 July 2008.

Timmerman, Alisa. Personal interview. 19 July 2008.

Walker, Kelly. "Now & Next: Furniture and Product Horizons: A Conversation with Bill

    Fritts." Arcade: Architecture/Design in the Northwest 26.4 (2008): 18-18.

The Relationship of Acculturation and All Cause Mortality Among Mexican Americans: Results from the NHANES III Mortality Follow Up

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Abstract

Background

Mexican Americans comprise the largest percentage of Hispanics in the United States, accounting for 9.5% of the population in 2006. Although more than 40% of Mexican Americans are foreign born, even individuals born in the U.S. face the process of acculturation, or the merging of Mexican and American cultures. Previous research has linked acculturation to both negative and positive health outcomes, with more acculturated Mexican Americans experiencing increased rates of substance use and abuse, asthma, and obesity, but decreased rates of physical inactivity and low self-esteem. The purpose of this study is to examine the relationship between acculturation and all-cause mortality in a nationally representative sample of Mexican Americans.

Methods

Using SAS and SUDAAN, we conducted a survival analysis using data from the Third National Health and Nutrition Examination Survey (NHANES III), a nationwide, multi-stage survey conducted between 1988 and 1994. Our analytic sample consisted of 3,330 Mexican-American adults ages 25-64 years who took part in a home interview and were followed up for mortality until 2002. Language spoken at home was used to assess the level of acculturation with those speaking mostly Spanish at home identified as having lower levels of acculturation.

Results

After adjusting for age, education, presence of chronic diseases and health insurance we found that acculturation was not a predictor of all-cause mortality in this group of Mexican Americans, men or women ages 25-64 years.

Conclusion

These findings indicate that acculturation may have no affect on the mortality of Mexican American men and women younger than 65 years of age. Additional research needs to be conducted in order to further explore other measurements of acculturation and the full spectrum of its effects on morbidity and disease-specific mortality.

Introduction

The Latino community has increased dramatically in the last ten years and according to recent

projections by the United States Census Bureau the population is expected to triple by the year 2050 (1).

According to census data from 2006, the largest segment of Latinos within the United States are Mexican

Americans (2). Traditionally the Mexican American community has been largely concentrated in states such

as California and Texas (1). Compared to the other major Latino groups (Puerto Ricans and Cubans) the

Mexican American population is relatively young; the median age being 25.7 years old (2). Being that over

40 percent of this population is foreign born (2) one can assume that many members of the Mexican

American community will experience acculturation to some degree within their lifetimes. It would be

remiss to not acknowledge acculturation when looking at the Mexican American population, particularly

when it comes to health status.

Acculturation is defined as "the process by which groups or individuals integrate the social and cultural

values, ideas, beliefs, and behavioral patterns of their culture of origin with those of a different culture" (3). The

process of acculturation should not be seen as one single event in a person's life but rather a long and

continuous process that can positively or negatively affect the health of recent immigrants and their offspring (4,

5, 6). The process of acculturation is a multi-dimensional, long term process that has varying degrees of effect

on individuals not only between different ethnic groups but within them as well (7). Therefore, research

exploring the association between acculturation and health status should be continued.

While the Latino population may suffer from health disparities and low socioeconomic status, the

mortality rates are similar to those of non-Hispanic Whites and much lower than non-Hispanic Blacks. This

contrast is commonly referred to as the Hispanic/Latino Paradox. Extensive research has been carried out

aiming to identify the factors that contribute to this paradox and what these "protective" factors may be.

Current research has linked greater acculturation with obesity, smoking, erosion of diet quality, high alcohol

intake, and with less physical inactivity among Mexican Americans (8, 9, 10, 11). There continues to be mixed

results on the benefits of acculturation; therefore it is inherent to continue research regarding its place within

the context of the Mexican American experience, as well as within other Latino groups. Obtaining this

information will further contribute to our knowledge on the unique effects migration has on the Mexican

American population and may assist public health professionals design more specific health programs for these

communities.

In this study we examine the relationship between acculturation and all cause mortality within the Mexican American community using data from the Third National Health and Nutrition Examination Survey (NHANES III). In addition, we hope to identify acculturation constructs that may modify social determinants of health disparities in a large sample of Mexican Americans.

Methods

Data for this study was drawn from NHANES III, conducted between 1988 and 1994 by the Centers for Disease Control and Prevention's National Center for Health Statistics. National data was collected on the health and nutritional status of 33,994 citizens aged two months and older, excluding those residing in institutionalized settings (military personal and prisons), through in person interviews and physical examinations. NHANES III oversampled the two largest racial/ethnic minority groups in the US, Mexican Americans and African Americans, in order to generate statistically reliable results during analysis. Weights were assigned to each participant allowing their responses to represent the racial/ethnic group they identify within the US. Participants were interviewed in their homes by trained bilingual (Spanish/English) interviewers. Our final sample size consisted of 3,330 self identified Mexican Americans between 25 and 64 years of age.

Measures

Through the NHANES III at home questionnaire, participants were asked what their primary language spoken at home was. Language mainly spoken at home (Spanish, Spanish/English, and English) was used as the measurement of acculturation. Those who spoke mainly Spanish at home were defined as being the least acculturated and those who spoke mainly English at home were defined as being the most acculturated. Information on all-cause mortality, our dependent variable, was obtained through the National Death Index (NDI), a repository of all death certificates in the United States, Puerto Rico and all US territories. NHANES III records were linked to the NDI in 2000 creating the NHANES III linked mortality file allowing the study of associations between health and risk factors with mortality. Other variables of interest included were: age, education, presence of chronic disease and health insurance. Wanting to focus on those who would have been

less likely to have insurance and on the young immigrant population our participants were between the ages of

25-64 (12). Education was measured as: <8 years, 9-11 years, 12years, 13 years ≥. Participants were identified

with having chronic disease if they responded "yes" to having any of the following diseases: arthritis, bronchitis,

stroke, asthma, congestive heart failure, emphysema, heart attack, osteoporosis, cancer, or back pain. To assess

if participants had health insurance they were questioned if they had been covered by any type of health

insurance in the past month. Acceptable forms of health insurance were Medicare, Medicaid, military health

care, privately obtained insurance, or insurance through a current or former employer or union.

Data Analysis

SUDAAN (Research Triangle Institute, Research Triangle Park, NC) was used in order to calculate the

frequency and percentage of the participants' demographic information. Due to the complex nature of the

NHANES III sampling design, SUDAAN incorporated sampling weights that adjusted for the unequal sample

size in the Mexican American population. Further frequency distribution data was analyzed for those "Assumed

Alive" and "Assumed Deceased". We also used SAS, Version 9.1 (SAS Institute Inc, Cary, NC), to estimate the

hazard ratio for acculturation and all cause mortality in men and women respectively. Sampling weights were

also used to adjust for small sample size and discrepancies in selection probabilities.

Results

The descriptive analysis presented in Table 1, describes the participants' demographics by age, education, income, work status, place of birth, years in the US, and preferred language at home. Our cohort of Mexican American men and women was nearly equally divided at 50.1% and 49.8% respectively. A majority (65%) of our cohort had less than 12 years of education. Of our participants 23.7% of the men and 22.09% of the women were born in Mexico and 26.21% of men and 27.98% of women were born in the United States. For purposes of this study results were adjusted by age, education (<8y, 9-11 y, 12 y, 13>), insurance (yes, no), and the presence of chronic disease (yes, no).

Measurement of acculturation was based on language preference at home. Approximately 59% of our participants preferred to speak Spanish at home, with approximately 37% of our participants preferring to speak English at home and 3.81% of them spoke both at home. Participants who spoke both Spanish and English at home were not included in the study due to insignificant sample size. At the time the NHANES III linked mortality file was created, 66 of female participants and 94 male participants were assumed dead.

Table 1-Descriptive Demographics

	Men		Women		Assumed Alive		Assumed Deceased	
	n	%	n	%	n	%	n	%
Age y								
25-34 y	638	19.16	621	18.65	1229	36.93	30	0.9
35-44y	457	13.72	501	15.05	918	27.58	40	1.2
55-64 y	304	9.13	269	8.08	479	14.39	94	2.82
Education y								
≤8y	761	23.11	707	21.47	1348	40.96	120	3.65
9 -11y	251	7.62	277	8.41	497	15.1	31	0.94
12y	325	9.87	387	11.75	690	20.97	22	0.67
13y≥	311	9.44	274	8.32	564	17.14	19	0.58
Income								
<20,000	706	21.97	749	23.31	1350	42.04	105	3.27
20-34,999	394	12.26	356	11.08	716	22.3	34	1.06
>35,000	507	15.78	501	15.59	957	29.8	49	1.53
Work Status								
Employed	1358	41.4	867	26.43	2131	65.01	92	2.81
Unemployed	118	3.6	73	2.23	176	5.37	15	0.46
Not in Labor Force	172	5.24	692	21.1	778	23.73	86	2.62
Place of Birth								
Mexico	756	24.48	705	22.83	1375	44.56	86	2.79
United States	779	25.23	848	27.46	1521	49.29	104	3.37
Years in U.S. y								
<5 y	205	6.64	229	7.42	396	12.83	38	1.23
5-19 y	115	3.72	101	3.27	211	6.84	5	0.16
10-19 y	275	8.91	234	7.58	487	15.78	22	0.71
20+ y	161	5.21	141	4.57	281	9.11	21	0.68
Born in U.S.	779	25.23	848	27.46	1521	49.29	104	3.37
Language								
Eng at Home	589	17.83	626	18.95	1159	35.11	54	1.64
Span at Home	1010	30.58	952	28.82	1829	55.41	133	4.03
Eng/Span at	58	1.76	68	2.06	119	3.6	7	0.21
Eng at Work	771	33.83	568	24.92	1292	56.74	46	2.02
Span at Work	486	21.33	276	12.11	718	31.53	44	1.93
Eng/Span at	115	5.05	63	2.76	172	7.55	5	0.22

Table 2 describes the adjusted hazard ratios and 95% confidence intervals (CIs) for acculturation and all cause mortality in Mexican American men and women separately. There was no statistically significant association between acculturation (measured by language preference in the home) and all cause mortality for both men (p > 0.47) and women (p>0.37). However, acculturation and all cause mortality was statistically significant in men who were uninsured (p>0.02). Our study shows that they were two times more likely (HR 2.04, 95% CI 1.15-3.61) to die than men who were insured. This finding is congruent with past research done on the uninsured and all cause mortality.

Table 2
Acculturation and All Cause Mortality in Mexican American Men and Women aged 25-64 years (Main language at home).

Women	HR	95% CI
English	1	(Reference)
Spanish	1.37	0.69-2.72
Men	**HR**	**95% CI**
English	1	(Reference)
Spanish	0.81	0.46-1.45

Note: HR=Hazards Ratio. CI = Confidence Interval. HRs are adjusted for age ($\leq$8y, 9-11y, 12 y, 13$\geq$) gender (male, female), health insurance (insured, uninsured), and presence of chronic disease (yes/no).

Another interesting finding was that the direction of the hazard ratio calculated for men (HR 0.81, 95% CI 0.45-1.45) and women (HR 1.37, 95% CI 0.69-2.72) was incongruent. Meaning that, all cause mortality is less likely to occur in men who are less acculturated than men who are more acculturated.

Discussion

Our results indicate that there is no relationship between acculturation and all cause mortality. The strengths of our study lie in the well characterized standard methods used in collecting data for NHANES III as a nationally representative sample. The questionnaire used to collect the information used in this study is validated and was conducted by well trained bi-lingual interviewers. Yet, limitations exist in our acculturation measurement in that one variable such as language spoken at home is limited and is not capable of capturing the acculturation experience. Further research using NHANES III data needs to be conducted exploring other acculturation measures for this population.

The process of acculturation is complex and multifaceted, factors that are enhanced based on country of origin, gender, or out of home interactions (13). The process can also be further complicated based on factors such as family structure, religious beliefs, skin color, and attitudes of the majority culture (7). It is important to consider these factors when examining the health status of communities comprised of immigrants and of those whose ethnic distinctiveness may make it difficult for them to assimilate or "fit into" the dominate culture. Other factors such as age at migration and social interaction can also affect health (5). Although individuals may have been born in the United States and speak primarily English they may exist in a bi-cultural world in which they balance between Anglo and Latino identity. For example, in a recent study on immigrant status and acculturation participants identified more closely as being Latino, however the mean score was closer to "bicultural" based on Marín's Acculturation Scale (14). Some researchers argue that acculturation should not be studied as a linear process but rather as a multicultural identity existing between cultures and that more emphasis should be placed on cultural strengths and structural risks factors (15, 17).

Within our study we found no significant association between acculturation (measured by language spoken at home) and all cause mortality. Research regarding acculturation and health continues to produce mixed and contrasting results. For example, while some studies have linked more highly acculturated Mexican Americans with greater obesity or erosion of diet quality (9, 10) others found that more highly acculturated Mexican Americans are more physically active during leisure time (8). In a recent study a majority of participants had reported that their health and overall quality of life had improved since living in the United States despite that a majority of them had also reported gaining weight (18). In regards specifically to Latinas, those who are highly acculturated have been found to have higher BMIs, smoke more and consume more alcohol than their less acculturated counter parts (11). However, they are more likely to exercise and to take preventative measures such as receiving breast cancer screenings (11, 19). While research regarding acculturation has been done to further fully understand migration and its effects on immigrant health, it has also been conducted in an attempt to identify reasons for the existence of the Hispanic/Latino Paradox.

The idea of the "Hispanic Paradox" was originally presented in *"The Health of Hispanics in the Southwestern United States: an Epidemiologic Paradox"* written by Markides and Coreil in 1986 (20,21). Over the last two decades much controversy has surrounded the Latino/Hispanic Paradox, framed by three primary explanation theories for the paradox's existence (20, 22, 23, 24, 25). The "healthy migrant" hypothesis supposes that migrants to the United States are the healthiest members of the communities from which they come from (11). The "salmon bias" theory, suggests that mortality statistics may be skewed by Latinos returning to their countries of origin at the end of their lives to eventually die there (11). If this is the case some feel that it would create inaccuracies when calculating mortality rates however, others feel that the "salmon bias" isn't relevant for all Latino populations (22). Finally, some researchers have argued that the Latino paradox resulted from miscalculations of mortality rates for Latinos in the United States due to incorrect identification in regards to ethnicity and race on death certificates and to inaccurate numbers for population and deaths among Latinos (26, 27).

In our study there was a significant link between acculturation and all cause mortality amongst Mexican-American men who were uninsured. Reports have shown that Latinos in the United States are less likely to possess health insurance than non-Hispanic whites, non-Hispanic blacks or non-Hispanic Asians. (28, 29, 30) A recent report on health insurance coverage by the National Health Interview Survey found that of the Latinos surveyed 1/3 were uninsured at the time of the interview or had been uninsured for at least part of the past year, and had been without insurance over a year (29). One study found that in 1999 for those who were uninsured almost half had not received needed care (i.e. doctor visit, prescribed medication, or treatments) when needed (31). While research has been done identifying cultural barriers as an issue for Latino health care other barriers appear to be more relevant to the population (32, 33, 34, 35). Estrada et al. found, using NHANES data that of their participants 33% reported encountering one or more barrier to health care and of those 73% reported that the barriers were enough for them to prevent from obtaining health care on that occasion (35). However as opposed to cultural barriers, for their participants their top five encountered barriers were costs, child care, transportation, and losing pay from work (35).

As the Latino population continues to grow surely research in this community will continue to increase. When exploring something as complex as acculturation our goal is not so much to identify a "protective factor" that has Latinos living longer but rather to recognize that the Latino community is not homogenous, not only in regards to ethnic variations but also in regards to immigration status and transitional process into life in the United States (27, 36). As well as to recognize that health in Latino communities (and all communities) should be, according to Markides, "more importantly tied to improving quality of life in these communities through education, employment, and access to care" (27). By exploring various factors existing within the Latino community researchers should continue to attempt to identify the strengths of individual ethnic communities. By doing so we will be able to build upon these strengths creating more relevant and appropriate disease prevention programs, in turn building healthier and stronger communities.

References

1. Bernstein R, Edwards T, United States. Bureau of the Census. National population projections. [Washington, D.C.]: U.S. Census Bureau, 2008.
2. United States. Bureau of the Census. American factFinder. Washington U.S. Census Bureau, 1991.
3. VandenBos GR, American Psychological Association. APA dictionary of psychology. Washington, DC: American Psychological Association, 2007.
4. Abraido-Lanza AF, Armbrister AN, Florez KR, et al. Toward a theory-driven model of acculturation in public health research. Am J Public Health 2006;96:1342-6.
5. Angel JL, Angel RJ. Age at migration, social connections, and well-being among elderly Hispanics. J Aging Health 1992;4:480-99.
6. Marín G, Marín BV. Research with Hispanic populations. Newbury Park: Sage Publications, 1991.
7. Padilla AM, Perez W. Acculturation, social identity, and social cognition: A new perspective. Hisp J Behav Sci 2003;25:35-55.
8. Crespo CJ, Smit E, Carter-Pokras O, et al. Acculturation and leisure-time physical inactivity in Mexican American adults: results from NHANES III, 1988-1994. Am J Public Health 2001;91:1254-7.
9. Gordon-Larsen P, Harris KM, Ward DS, et al. Acculturation and overweight-related behaviors among Hispanic immigrants to the US: the National Longitudinal Study of Adolescent Health. Soc Sci Med 2003;57:2023-34.
10. Kaplan MS, Huguet N, Newsom JT, et al. The association between length of residence and obesity among Hispanic immigrants. Am J Prev Med 2004;27:323-6.

11.   Abraido-Lanza AF, Chao MT, Florez KR. Do healthy behaviors decline with greater acculturation? Implications for the Latino mortality paradox. Soc Sci Med 2005;61:1243-55.
12.   Singh GK, Siahpush M. Ethnic-immigrant differentials in health behaviors, morbidity, and cause-specific mortality in the United States: an analysis of two national data bases. Hum Biol 2002;74:83-109.
13.   Arcia E, Skinner M, Bailey D, et al. Models of acculturation and health behaviors among Latino immigrants to the US. Soc Sci Med 2001;53:41-53.
14.   Sussner KM, Lindsay AC, Greaney ML, et al. The Influence of Immigrant Status and Acculturation on the Development of Overweight in Latino Families: A Qualitative Study. J Immigr Minor Health 2008.
15.   Phinney J. Ethnic Identity and Acculturation. In: Chun KM, Balls Organista P, Marín G, eds. Acculturation: Advances In Theory, Measurement, and Applied Research. Washington D.C.: American Psychological Association, 2003:63-82.
16.   Finch BK, Vega WA. Acculturation stress, social support, and self-rated health among Latinos in California. J Immigr Health 2003;5:109-17.
17.   Carter-Pokras O, Zambrana RE. Latino Health Status. In: Aguirre-Molina M, Molina C, Zambrana RE, eds. Health Issues in the Latino Community. San Francisco: Josey-Bass, 2001:23-54.
18.   Kepka D, Ayala GX, Cherrington A. Do Latino immigrants link self-rated health with BMI and health behaviors? Am J Health Behav 2007;31:535-44.
19.   O'Malley AS, Kerner J, Johnson AE, et al. Acculturation and breast cancer screening among Hispanic women in New York City. Am J Public Health 1999;89:219-27.
20.   Markides KS, Eschbach K. Aging, migration, and mortality: current status of research on the Hispanic paradox. J Gerontol B Psychol Sci Soc Sci 2005;60 Spec No 2:68-75.
21.   Markides KS, Coreil J. The health of Hispanics in the southwestern United States: an epidemiologic paradox. Public Health Rep 1986;101:253-65.
22.   Abraido-Lanza AF, Dohrenwend BP, Ng-Mak DS, et al. The Latino mortality paradox: a test of the "salmon bias" and healthy migrant hypotheses. Am J Public Health 1999;89:1543-8.
23.   Turra CM, Goldman N. Socioeconomic differences in mortality among U.S. adults: insights into the Hispanic paradox. J Gerontol B Psychol Sci Soc Sci 2007;62:S184-92.
24.   Smith DP, Bradshaw BS. Rethinking the Hispanic paradox: death rates and life expectancy for US non-Hispanic White and Hispanic populations. Am J Public Health 2006;96:1686-92.
25.   Hunt KJ, Resendez RG, Williams K, et al. All-cause and cardiovascular mortality among Mexican-American and non-Hispanic white older participants in the San Antonio Heart Study - Evidence against the "Hispanic paradox". American Journal of Epidemiology 2003;158:1048-57.
26.   Palloni A, Arias E. Paradox lost: explaining the Hispanic adult mortality advantage. Demography 2004;41:385-415.
27.   Vega WA, Amaro H. Latino outlook: good health, uncertain prognosis. Annu Rev Public Health 1994;15:39-67.
28.   Balluz L, Okoro C, Strine T. Access to Health-Care and Preventative Services Among Hispanics and Non-Hispanics---United States, 2001--2002. Morbidity and Mortality Weekly Report 2004;53:937-41.
29.   Cohen RA, Martinez ME, Free HL. Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey, January - September 2007. (8/08/2008, 2008). (http://www.cdc.gov/nchs/data/nhis/earlyrelease/insur200806.htm).
30.   Documet PI, Sharma RK. Latinos' health care access: financial and cultural barriers. J Immigr Health 2004;6:5-13.

31.   Carillo JE, Trevino F, Betancourt JR, et al. Latino Access to Health Care. In: Aguirre-Molina M, Molina C, Zambrana RE, eds. Health in the Latino Community. San Francisco: Josey-Bass, 2001:55-73.
32.   Chesney AP, Chavira JA, Hall RP, et al. Barriers to medical care of Mexican-Americans: the role of social class, acculturation, and social isolation. Med Care 1982;20:883-91.
33.   Berk ML, Schur CL, Chavez LR, et al. Health care use among undocumented Latino immigrants. Health Aff (Millwood) 2000;19:51-64.
34.   Marshall KJ, Urrutia-Rojas X, Mas FS, et al. Health status and access to health care of documented and undocumented immigrant Latino women. Health Care Women Int 2005;26:916-36.
35.   Estrada AL, Trevino FM, Ray LA. Health care utilization barriers among Mexican Americans: evidence from HHANES 1982-84. Am J Public Health 1990;80 Suppl:27-31.
36.   Bagley SP, Angel R, Dilworth-Anderson P, et al. Adaptive health behaviors among ethnic minorities. Health Psychol 1995;14:632-40.

Shock Effects in CML-0175:
The "Wow" Stone

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Abstract:
Chemical and optical analysis of the unclassified CML-0175 meteorite lead to some undocumented trends in relation to the thermal indicators. Analysis of troilite and iron–nickel metals has shown typical indications for both rapid and slow cooling. These findings suggest that more than one physical process may have been occurring. The results lead to more questions being posed about how we read the thermal indicators of shocked chondrites, and what other processes may have been occurring.

CML-0175 is currently an unclassified chondrite. The original sample (105 g) was found in Northwest Africa. The Cascadia Meteorite Laboratory (CML) acquired it through a private donation. Five polished thin sections were made from two areas of the meteorite. One area shows materials that have experienced extensive shock processing, while the other area appears to be preserved chondritic textures which experienced minimal shock processing.

Two types of data were obtained for these thin sections. The optical microscope was used to obtain textural information, and the electron microprobe (EMP) was used to obtain chemical data. Optical mosaics at various magnifications were made for every thin section using the DM 2500 optical microscope and Leica imaging software. Figure 1 shows an optical map of 0175-2A, the bright areas are the highly reflective metals and sulfides, while the dark regions are the silicates. Thin section 0175-2A was carbon coated after imaging and sent for EMP analysis. Portland State University controls the EMP through a secure network with Oregon State University where the instrument is housed. The EMP collects chemical data by exciting the sample with an electron beam. The instrument generates an electron beam and hits the sample with it in a very precise location (accurate to 1 μm). This beam will excite the atoms in that location on the sample and the excited atoms generate x-rays. The x-

rays are then collected at the arms of the EMP and filtered by precise crystals. The crystals reflect only the desired energy level x-ray and allows for a calculation of chemical composition based on the frequency of the specific x-ray. The EMP housed at Oregon State University has 5 collector arms, allowing for five simultaneous element analyses. The session run on sample 0175-2A was calibrated for metal and sulfide analysis, so the silicates of the sample were not analyzed.
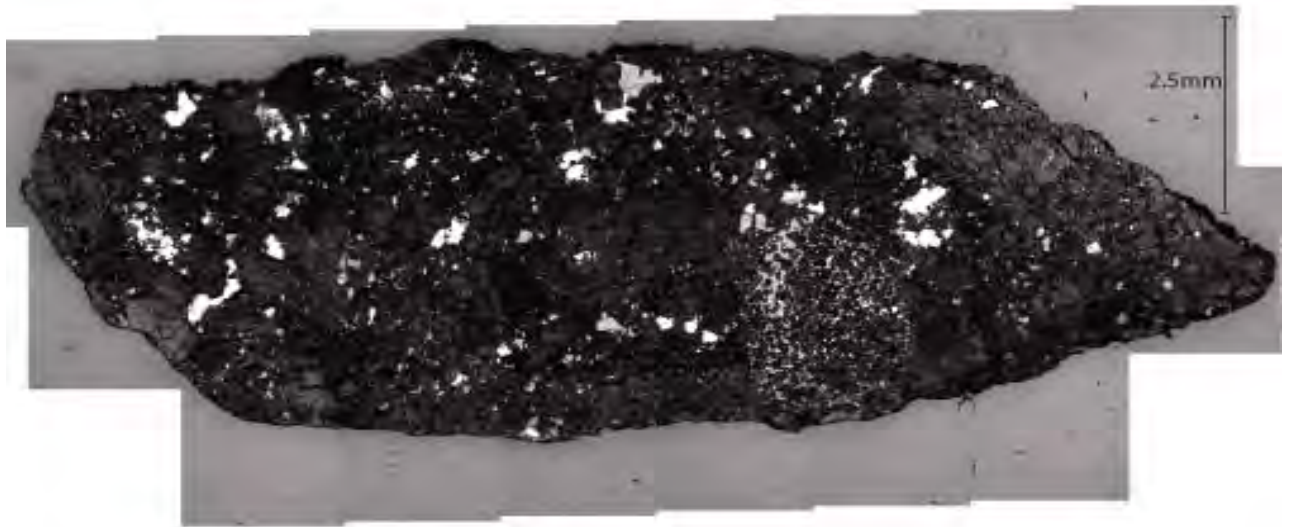

Figure 1: Thin section 0175-2A, reflected light image.

The sulfides within the meteorite are troilite (FeS). This mineral was first found in meteorites, and has since been discovered in terrestrial rocks although such occurrences are rare. The typical composition of troilite is roughly 50% iron and 50% sulfur, with minor impurities also occurring. In meteorites the typical nickel content in troilite is about 0.02 weight percent. In this sample 18 troilite grains were successfully analyzed, Figure 2 shows

the nickel content in each of these analysis points. The 18 grains revealed an interesting

pattern; troilite grains in contact with a metal grain typically show moderately elevated nickel

contents (above 0.1 weight percent). The grains that are not in contact with a metal grain

typically have little to no elevation in the nickel content with the trend being less than 0.1

weight percent nickel in these grains. As seen in figure 2 there are a few exceptions to the

trend, but the frequency of the elevated nickel in grains in contact with metal is surprising.

Typically elevated nickel content in troilite is viewed as an indication for a faster cooling rate

(Smith and Goldstein 1977), and the pattern seen in this sample with both high and low Ni

contents could indicate that different grains in close proximity to one another cooled at

different rates.
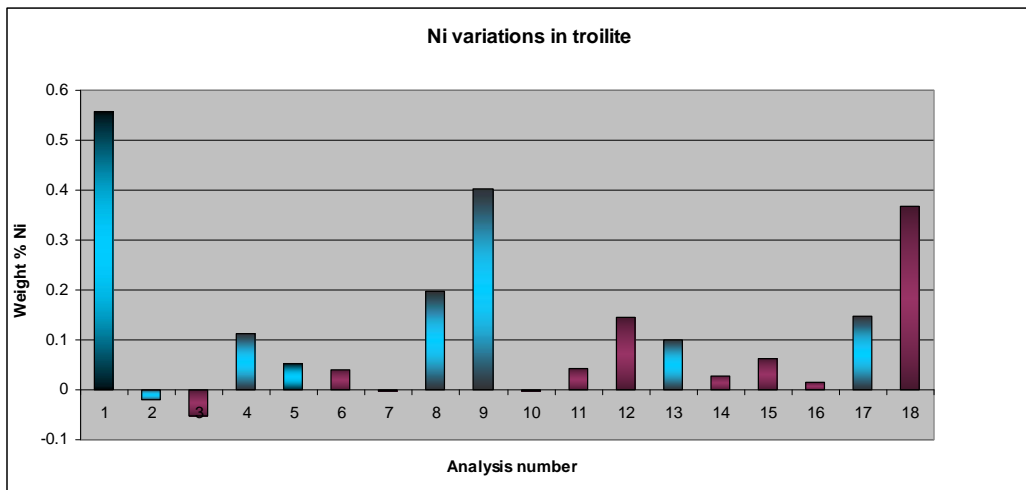
Figure 2: Nickel content in troilite grains. Blue bars are troilite in contact with metal grain; purple bars are not in contact with a metal grain.

Metals within a meteorite can typically reveal information about the cooling rate.

Within this thin section there are indicators of both rapid cooling and slow cooling. Through

EMP data four major metal phases were identified: kamacite, martensite, taenite, and

tetrataenite. All four are iron nickel metals listed by increasing nickel content. Typically

martensite is thought to form under rapid cooling conditions and represents the bulk nickel

content of the melt; while kamacite, taenite, and tetrataenite are believed to form under slower cooling conditions or equilibrium conditions (Reisener and Goldstein 2003). The formation of these metals occurs below the melting point of the metal as a sub-solid phase transition. Figure 3 shows one area analyzed with EMP showing the locations of the metal phases. This location is particularly interesting because it contains troilite grains of both elevated and typical nickel contents as well as all four metal phases.
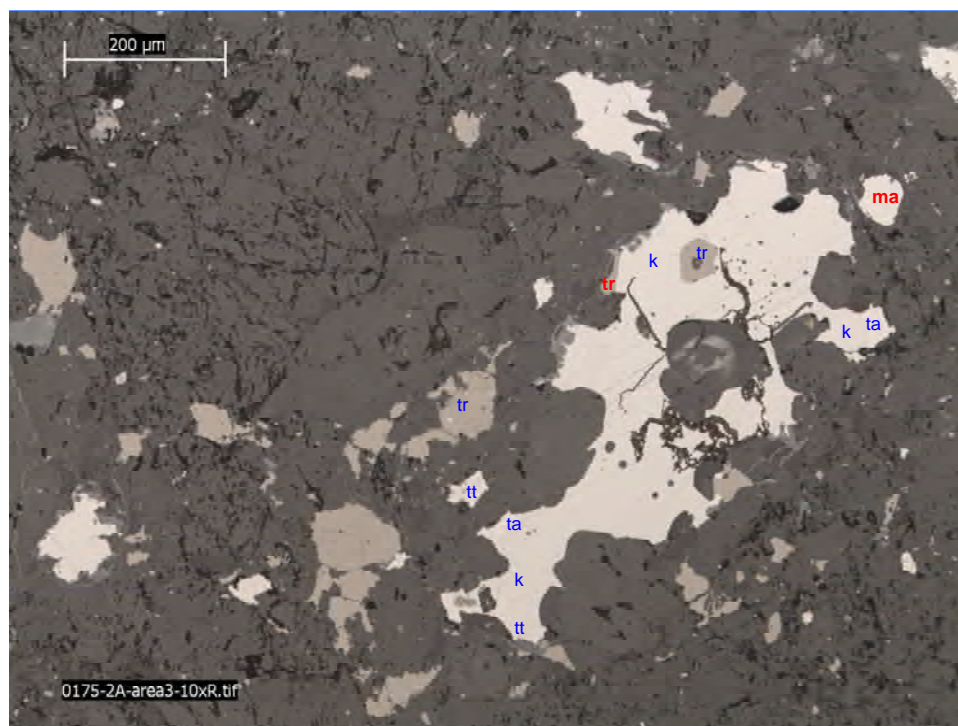
Figure 3: One area from thin section 0175-2A that was analyzed with the EMP. Some analysis points are identified by phase. (ma-martensite, k-kamacite, ta-taenite, tt-tetrataenite, tr-troilite) Red indicated a chemical composition typical for rapid cooling and blue is a chemical composition typical of slow cooling. The darker background areas are silicates which have not yet been analyzed.

The metal and troilite grains exhibit chemical indicators for both rapid and slow cooling, but another area of the meteorite clearly shows rapid cooling formations.   Figure 4 is a reflected light mosaic of thin section 0175-4-3. Areas A and B are large areas of metal

troilite intergrowths showing dendritic textures. Scott (1982) determined this texture forms only as a result of rapid cooling. Using a technique described by Scott (1982), 13 secondary arm spacings were measured across the three thin sections showing this texture. Scott (1982) determined the relationship between the secondary arm spacing and the cooling rate to be expressed as $R=530000d^{-2.9}$ where R is the cooing rate (°C/sec) and d is the secondary dendritic arm spacing (μm). The 13 measurements from the thin sections gave an average cooling rate of 12.13 °C/sec. Table 1 shows the individual measurements, the thin section on which the measurement was taken, and the calculated cooling rate. The variance appears to be large across the thin sections, with calculated values ranging from 4.5 to 24.3 °C/sec, but it is important to note Scott (1982) cites the estimated systematic error to be a factor of 12 to 15. The collected data here fall well within expected errors of that magnitude. The main conclusion one can draw from this is that metal showing dendritic texture must have cooled very rapidly.
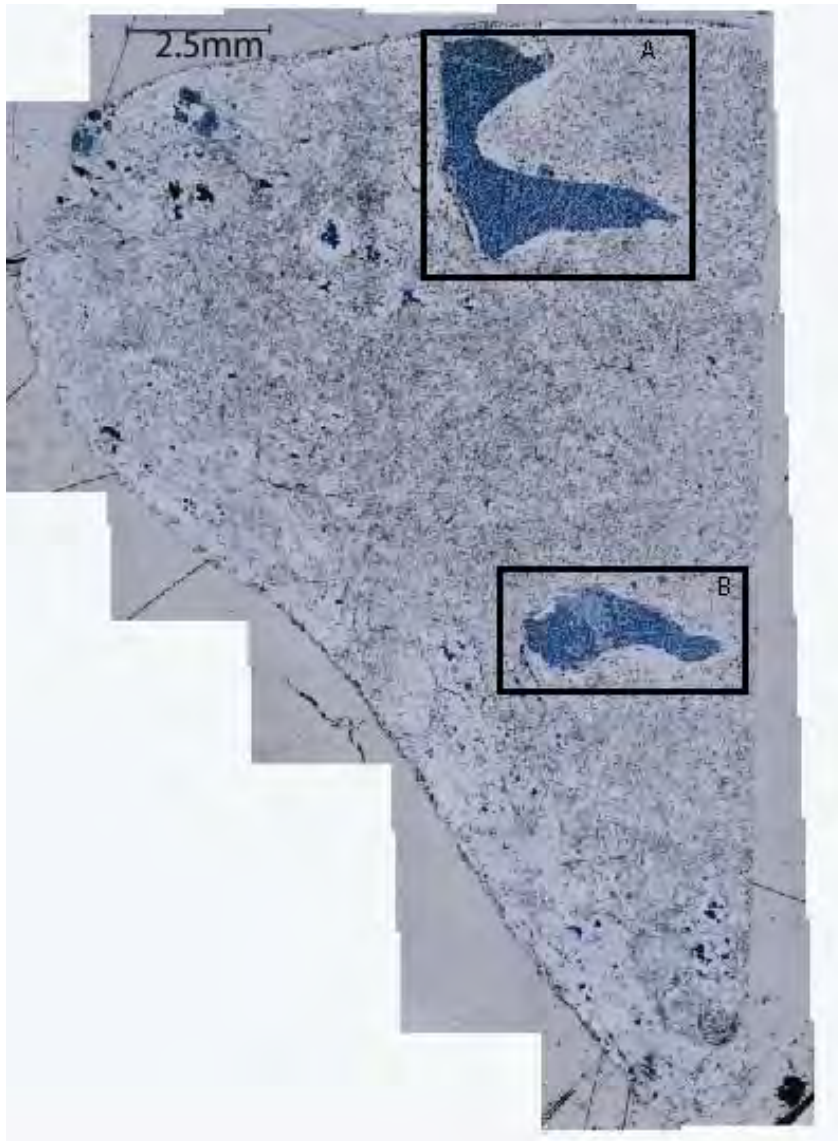
Figure 4: Thin section 0175-4-3, reflected light image. Section was carbon coated prior to imaging. Metals and sulfides appear blue-colored, silicates grey.

Table 1: Cooling rates calculated from metal dendrite secondary arm spacings.

Arm designation	d micrometers	R °C/sec
4-1-a2	36.24	15.95
4-1-a2	43.31	9.51
4-1-a2	42.36	10.14
4-1-a2	44.71	8.67
4-1-a2	37.60	14.33
4-1-a3	55.98	4.52
4-1-a3	38.68	13.20
4-1-a4	43.48	9.40
4-1-a4	37.89	14.01
4-1-sa1	31.33	24.32
4-1-sa2	38.40	13.48
4-2-a2	36.96	15.06
4-3-a1	53.91	5.04
	Min	4.52
	Max	24.32

	STDEV	5.18
	AVERAGE	12.13

The underlying theme of this meteorite is a complex and not yet fully understood thermal history. The meteorite has experienced extensive shock processing, but the cooling history is still unclear. Looking at the preliminary data leads to two main theories that could begin to explain the processes that occurred to produce the observed features. First, the meteorite may be composed of grains from different thermal backgrounds which recorded their own cooling rates and have since been juxtaposed. Alternatively, kinetic factors such as nucleation effects and disequilibrium conditions could have influenced grains within the meteorite, allowing different grains to record different events from the same thermal processes. Most likely both explanations could be partially correct.

Future research on this sample will include work on the scanning electron microscope (SEM), as well as further work with instrumentation already used. More chemical data will be required to begin the classification process, as well as to further understand the features that have already been observed.

References Cited

Reisener R. J. and Goldstein J. I. (2003) Formation of zoned and unzoned metal particles *Meteoritics and Planetary Sciences* **38,** 1679-1696

Scott E. R. D. (1982) Origin of rapidly solidified metal-troilite grains in chondrites and iron meteorites *Geochim. Cosmochim. Acta* **46,** 813-823

Smith B. A. and Goldstein J. I. (1977) The metallic microstructures and thermal histories of severely reheated chondrites. *Geochim. Cosmochim. Acta* **41,** 1061-1072

Time after Time: Exploring Temporality and Identity in
Wong Kar-wai's *Days of Being Wild, In the Mood for Love,* and *2046*

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Wong Kar-wai is part of a generation of Hong Kong filmmakers whose work can be seen in response to two pivotal events in Hong Kong, the 1984 signing of the Sino-British Joint Declaration detailing Hong Kong's return to China in 1997 and the events of Tiananmen Square in 1989. As a condition of the handover, China has promised a fifty-year period in which the economic system and way of life in Hong Kong are to remain unchanged, and that period ends in the year 2046. It would be an error, however, to read Wong's films in a political context solely because he is a Hong Kong filmmaker, and Rey Chow criticizes such a wholesale political reading of Hong Kong cinema, writing, "I am referring to the tendency, whenever a non-Western work is being analyzed, to affix to it a kind of reflectionist value by way of geopolitical realism so that a film made in Hong Kong around 1997, for instance, would invariably be approached as having something to do with the factographic 'reality' of Hong Kong's return to the People's Republic of China" ("Nostalgia" 32). Chow suggests that an analysis which deliberately departs from such a reading might be more beneficial.

Although I understand and agree with Chow's criticism, for the purpose of this essay I take a viewpoint closer to that of Ka-Fai Yau who maintains that Hong

Kong's geopolitical position does affect its cinema. Yau works within a Deleuzian

framework to suggest a connection between Hong Kong cinema and, primarily, the

anxieties surrounding the 1997 handover. Yau writes, "In response to its specific

geohistorical situation, an o/Other cinema of

thirdness begins, when the new Hong Kong cinema has been responding to a new

geohistorical situations via new cinematic images" (541). Yau correlates the post-1984

new Hong Kong cinema with the post-WWII cinema and the "new image" that Gilles

Deleuze explores in *Cinema 1* and *Cinema 2*. Deleuze identifies WWII as the pivotal

event whose fallout fundamentally altered the way we experience images. This

alteration resulted in the creation of a new cinematic image in which the seer replaces

the agent and movement changes from being location specific to being time specific.

For Deleuze, action loses its impact as "it is no longer time which is subordinate to

movement; it is movement which subordinates itself to time" (*Cinema 2* 271). Events

occur across the terrain of time as stories unfold in cycles instead of lines. We see this

in Wong's films as his characters are more or less locally fixed but wander freely

through temporal space, often manifested in nocturnal wanderings without

destination or the simple act of waiting. Yau interprets this Deleuzian emphasis on

the new image within the context of thirdness which can be understood as a relational

quality or a point of transition, essentially a space of becoming in which a character

moves between one identity and another. In this essay, I read Wong's work in part

through Yau's lens, as a response to the cultural anxieties provoked by the handover

as manifested in Wong's films by a preoccupation with both the specificity and arbitrariness of time resulting in temporal dilemmas which come to identify the characters.

The first film in the trilogy, *Days of Being Wild*, centers on Yuddy (Leslie Cheung), a rebellious young man whose search for his birth mother provides the structure for the story. Rebecca (Rebecca Pan) is Yuddy's foster mother with whom he shares a combative relationship because Rebecca knows the identity of Yuddy's mother but refuses to tell him. Finally she does relent and tells Yuddy that his mother lives in the Philippines, at which point Yuddy goes to the find her but is disillusioned, and in a voiceover tells us that he only wanted to know what his mother looked like, but she refused to see him at all. Her rejection sends Yuddy into a hostile depression and in a self-destructive move he cheats a gang of criminals out of a forged passport. Yuddy flees on a train with a friend and while onboard is shot by an unknown man with a gun. He dies on the train and his last thought is of a woman he once loved, So Lai-chun (Maggie Cheung), a character of sorts whom we will meet many times.

The second film, *In the Mood for Love*, begins with a character named So Lai-chun, again played by Maggie Cheung, moving into a boarding room. If this is the So Lai-chun from *Days of Being Wild*, she is now the married Mrs. Chan, a sophisticated version of her character from the previous film. Just as So Lai-chun reappears, so, too, does Yuddy, also in minor variation and now called Chow. It is complicated to read Yuddy and Chow as the same character because Yuddy dies in the first film,

however, as I will demonstrate later, I believe there is a strategy for reading these two

characters as parts of a whole. Chow rents a room in the neighboring apartment and

moves in on the same day as Mrs. Chan. The moving crews mix up the couples'

possessions before finally returning things to their rightful owners and this only

begins a pattern of swapping as Mrs. Chan and Chow soon realize that their spouses

are having an affair with each other. Attempting to determine how the affair started,

they begin to role play with Mrs. Chan acting the part of Chow's wife and Chow

acting the part of Mrs. Chan's husband. They also slip into and out of their own

identities as well, creating an indeterminate layer of identity while repeating, "We

won't be like them," defining themselves in relation to their absent spouses. Chow

eventually truly falls in love with Mrs. Chan and the relationship ends in a melancholic

sigh.

In *2046*, the last film of the trilogy, Chow returns, though he is considerably

different. As opposed to the earlier clean-shaven Chow, this one wears a moustache

and, as he tells us, is an "expert ladies man." Essentially, he looks like Chow, but acts

like Yuddy. Chow meets a gambler in Singapore called Black Spider, who he later

finds is named Su Li Zhen (Gong Li). This Su Li resembles the other in both name

and appearance, though is not the same woman. Chow's dealings with Black Spider

begin and end the film, echoing a pattern of recurrence we see throughout the trilogy.

Concurrent to this story, the film also portrays a place called 2046, accessible by a

futuristic train. As Chow tells us, "It is a place to recapture lost memories because in

2046 nothing ever changes." We see the train with one passenger on it. He is another

iteration of Chow, this time a Japanese man called Tak (Takuya Kimura). As the film

ends, we see Tak going to 2046 and returning in a seemingly endless train ride.

Wong deftly manipulates time within each film and through the course of the

trilogy such that a repeated element in one film ultimately becomes part of a

consistent framing device for the whole trilogy. These elements such as clocks and

mirrors are what Rey Chow might call items of the "everyday" that come to take on

multiple meanings ("Sentimental" 648). Through repetition, these items undergo a

constant process of redefinition, similar to the transformational process Wong's

characters undergo. When *Days of Being Wild* begins, Yuddy buys a Coke at the

counter of a modest hotel lobby in Hong Kong, 1960. His bag is slung over his

shoulder as he leans against the counter and the lobby walls sweat under peeling layers

of paint. Yuddy and the counter girl are the only ones in the room, seemingly in the

world. In one smooth motion Yuddy pulls a bottle from the cooler, pries the cap off

and sets it down on the counter, cigarette dangling from his lips. A medium shot

moves into a close-up of Yuddy's handsome face as he asks the counter girl, "How

much?" She tells him the price and the scene cuts to a close up of a wall clock; it's

3:00 in the afternoon. The scene cuts back to Yuddy as he asks, "What's your name?"

The girl refuses to tell him, but he already knows, "Your name is So Lai-chun." The

camera follows So Lai-chun (Maggie Cheung) as she moves from behind the counter

into the room. Startled that he knows her name, she straightens her back and asks

how he knows it. Instead of answering, Yuddy leans in over her shoulder and purrs,

"You'll see me tonight in your dreams." So Lai-chun does indeed dream of Yuddy

and when she sees him later, he tells her that he wants to be friends. In a close-up of

the wall clock we see the second hand sweep through one minute before the hands

arrive at 3:00 again. Yuddy tells So Lai-chun, "From now on, we're one-minute

friends." The two move from being friends for one minute to two minutes to an

hour and so on. Indeed, their friendship will last throughout the trilogy, though

always in variation.

　　　This scene begins Wong's 1960s trilogy, and it is a fitting introduction to the

director's major themes of temporality in relation to secrets and revelation, the actual

and the virtual and nostalgia and return. I suggest that one way to understand Wong's

trilogy is to see *Days of Being Wild* as the beginning of a long memory which builds a

sense of melancholic nostalgia that is shot through the whole trilogy. The story

initiates a search for identity that eventually culminates in a state of irresolution in

2046. The characters do not arrive at any one defined state, but rather exist in a state

of what Ka-Fai Yau might describe as thirdness, or a space of transition and

becoming. Wong complicates this interstitial space by layering characters and forming

plot circuits so that a character's name might resurface despite being associated with a

different person in a different time, suggesting that identity is perpetually unfixed or

unknown. Yuddy illustrates this idea because he is repeatedly denied his "real"

identity.

Like many of the women in Wong's films, Yuddy's foster mother Rebecca has an ambiguous past. It's hinted that she was a paid escort and, as we find later in the film, was steadily paid by Yuddy's birth mother to care for him. Rebecca, however, now supports Yuddy and draws a connection between supporting Yuddy and paying for an escort. The transactional nature of Yuddy and Rebecca's relationship is repeated elsewhere throughout the trilogy. Here Yuddy and Rebecca are bound by an unspoken contract. Similarly, in *In the Mood for Love*, the affair is discovered through exchanged gifts and in *2046* one lover keeps the other at a distance by buying her time. This commodification of time gives value to an otherwise abstract entity, but in a very critical way. Payment serves as a precursor to love as love becomes a thing that must be serviced. Wong's characters rarely love the person with whom they are partnered to the degree that payment serves as a substitute for love. To that end, love is not the thing of greatest value in relationships, but rather time is.

The combative relationship between Yuddy and Rebecca is based on secrets, the first of Wong's three major themes. Rebecca withholds the identity of Yuddy's mother from him in part with the hope that her secret will draw Yuddy closer and will deepen their bond. This hope establishes a pattern of relation between Wong's characters in the trilogy. Characters rely on secrets as having special powers that will release them from the present. Yuddy wants to know the secret of his mother's identity because he wants to understand his own, but Rebecca does not want to divulge what she knows because she wants to keep Yuddy as a part of her identity.

This reliance on secrets as protection implies a faith in the power of the unknown, whether it is the future or the past, and in this case Rebecca and Yuddy both feel the power of the unknown and struggle for it. During a scene in Rebecca's bedroom in which she and Yuddy discuss the matter of his mother's identity, Yuddy lazily daydreams in a chair while Rebecca sits on the bed talking to him. Yuddy looks at her and says, "Don't you know you're giving me an excuse to hate you?" Rebecca stands in flash of anger and replies that Yuddy should go and find his mother in the Philippines. She tells him that he thinks of his mother as a fantasy and instead she could be, as she says, "Worse than me!" Rebecca's implication is that the secret Yuddy dearly wants to know may be a disillusioning fantasy that is worse than the reality he already knows, suggesting he should take refuge in fantasy. Nevertheless, Yuddy cannot be swayed and leaves as soon as Rebecca tells him his mother's whereabouts. The scene ends in a curious medium shot of Rebecca as she stands before the backdrop of a plum colored sky with her back to us as she stares into the distant sea. As the shot tracks in to a close-up, Rebecca turns to cast an arched look over her shoulder. She is poised somewhere between Yuddy's past and future and the knowing looks she gives is one of the most pointed in the film because it suggests the corrosive nature of her secret and the dangerousness of this peculiar threshold. Though Rebecca may not know the future, she has decided to relinquish the past by releasing her authority over Yuddy and as he leaves, she stands centered in a placeless frame, waiting.

Yuddy leaves for the Philippines to find his birth mother, but it is a doomed

trip because knowing his mother's identity does not provide him with any insight into

his own. In a tracking shot we see Yuddy from behind, walking angrily down a palm

tree-lined gravel road and away from his mother's tropical estate. His back is to the

camera as we follow behind him. Yuddy's mother refused to see him, and even worse

she refused to let Yuddy see her. It's a greater crime because to have seen his

mother's face would have been to see into his past, to find the root of himself, but

instead her denial is a denial of his own identity because for Yuddy, the face is the

primary site of identity, as evidenced by the number of occasions that he stares

searchingly into a mirror. His mother's rejection means that he'll never see beyond

his own blankness and as he walks away with his back to the camera, his denunciation

of identity is clear.

Yuddy's fixation with his image in a mirror is emphatic in the film. In several

shots we see Yuddy before a mirror combing back his hair or adjusting his collar, even

at one point dancing with his mirror image. He seems to exist as a companion to his

mirrored self rather than the originator of it. Yuddy's search for an identity through

the mirror may provide a connection between Yuddy in *Days of Being Wild* and the

central character, Chow Mo-wan (Tony Leung), in the next two films of the trilogy.

At the end of *Days of Being Wild*, Yuddy flees on a train with a friend, Tide, and while

onboard is shot to death. While Yuddy dies on the train, his last thought is of his

"one minute friend," So Lai-chun. Yuddy tells Tide, "When you see her again, tell her

I remember nothing." This will be significant in *2046* when Chow boards a train to a place called 2046, a place where people go to recover lost memories.

In the last scene of *Days of Being Wild* we can establish the connection between Yuddy and Chow. The final scene is short and mysterious. A nameless character (Tony Leung) is preparing for an evening out. The ceiling is strangely low, giving the room a vaguely convex, hallucinatory cast. The man is a dapper figure styled as less tragic Yuddy. With Yuddy's mannerisms, he folds a pack of cigarettes into one pocket and a bundle of money into another. He looks deeply at himself in a mirror and combs back his pomaded hair. He has all the confidence and certainty Yuddy lacks and the film ends with the man flicking his cigarette out the window, turning off the light and leaving the room. The scene lasts about three minutes and seems to have no connection to the film and no explanation, until ten years later when the second film in the trilogy, *In the Mood for Love*, offers a possible solution with the appearance of Tony Leung as Chow. If the films are read in a straightforward chronology, it's difficult to say that Yuddy is Chow, particularly because Yuddy dies on the train. However, if the films are read as concurrent alternatives or as stories which overlap in chronology and potentialities, it's possible to read Chow as a facet of Yuddy, a kind of through-the-looking-glass version. In order to read the films this way, it's helpful to look at Gilles Deleuze's concept of the mirror image.

Deleuze sees the mirror as a place of exchange. The actual and the virtual enter into a circuit which becomes a dialogue about identity. Deleuze sees this circuitry as

part of the crystal image, the relay between the actual and the virtual (*Cinema 2* 71). If

we see Yuddy and Chow as bits along the circuit, we can read them as facets of a

singular entity, reflecting and existing in relation to each other. Operating under this

theory, it's possible to imagine a situation in which Yuddy looks into a mirror and sees

Chow staring back. It becomes therefore possible to follow Chow as he picks up the

story where Yuddy leaves it. This is not a chronology, but a circuitry in which

repeated characters play more like minor variations.   Deleuze argues that this circuitry

is part of image-making in a postwar, and I argue new Hong Kong, cinema in which

we "no longer know what is imaginary or real, physical or mental…It is as if the real

and the imaginary were running after each other, as if each was being reflected in the

other" (*Cinema 2* 7). In Wong's films, the real and imaginary are always in constant

intersection in the form of coincidences, clichés, and mistaken identities. To read

Chow as a minor variation of Yuddy allows us to look at the trilogy in a different way,

through layers versus linearity, and it introduces Wong's second major theme, which

is the interplay between the actual and the virtual.

　　　In the Mood for Love explores the relationship between the actual and the virtual

explicitly. For the sake of clarity in this discussion, I will refer to the So Lai-chun

character as Mrs. Chan and the Yuddy/Chow character as Chow. Mrs. Chan and

Chow are brought together by the discovery that their spouses are having an affair.

The scene takes place in a restaurant as Mrs. Chan sits in a booth across from Chow.

In a shot/reverse shot series of close-ups, Chow subtly asks Mrs. Chan where she got

her handbag. She replies that her husband bought it on a trip abroad and it isn't

available locally. Chow replies gently in an exhale of cigarette smoke, "Oh," he says as

he clinks his cup against its saucer. "Actually," Mrs. Chan says, "I want to ask you

something too." The camera quickly pans to Chow as he looks up, "What?" he asks.

A quick pan to Mrs. Chan holds her in close-up as she inquires about Chow's tie. He

says that it, too, came from abroad and was a gift from his wife. "What a

coincidence," Mrs. Chan smiles subduedly and then reveals that her husband has the

same tie. Chow then reveals that his wife has the same handbag. Casting their eyes

downward, the two confess their suspicions of their spouses' affair, a fact confirmed

by their indiscrete gift exchanges. Before long, the discovery turns out to be liberating

because it unites them in their curiosity about how the affair started. The next scene

shows Mrs. Chan and Chow strolling down a deserted street as they begin an intricate

game of role playing in order to retrace the beginning of the affair. When we return

later to the restaurant, Mrs. Chan and Chow's roles have changed somewhat as they

enter into a second, virtual relationship.

        The couple is again seated in a booth. "You order for me," Mrs. Chan says,

handing Chow the menu, "I've no idea what your wife likes." With this invitation, the

couple takes on an additional set of identities. Mrs. Chan acts the part of Chow's wife

as Chow acts the part of Mrs. Chan's husband. In the course of this, they

nonchalantly slip into and out of their own identities as well, breaking character when

the moment doesn't feel right or when a point is in dispute. In their combination of

reality and fantasy, they live in the virtual and actual world simultaneously. If in *Days of Being Wild* the mirror acts as a point of exchange between the actual and the virtual, here that exchange happens without the mediation of a mirror. Mrs. Chan and Chow establish a circuit between the two worlds in which their present identity is an oscillation between the real and imaginary. This layering of identity creates a present based on a perceived past. Mrs. Chan and Chow may reenact the beginning of their spouses' affair and at the same time create a history for themselves in which they are defined in relation to a set of others, or the two missing spouses.

Several times during the course of their relationship, Mrs. Chan and Chow say to each other, "We won't be like them," yet it's unclear what they really mean because the two indeed are becoming just like "them" by intentionally retracing their steps and it is here that time begins to fragment. During the scene in the restaurant, Mrs. Chan has three wardrobe changes. Though the scene appears to play out over the course of one evening, Mrs. Chan's three different dresses indicate that the couple has had dinner on at least three separate evenings. In this atypical differentiation of time, Wong gives us no other sense that time has passed except this subtle clue that plays out between four personas in the bodies of two characters. In Deleuzian terms, this layering can be thought of as part of something that Deleuze refers to as the crystal image, which he defines as the relay between the actual and the virtual, the clear and the opaque, and the part and the whole (*Cinema 2* 71). In the case of Mrs. Chan and Chow, it is a relay between themselves and the roles they play, between real and

repressed desire, between this one moment and time undifferentiated. This process of layering is an ever changing reformulation of the present via the past in a situation in which facets of an image or reality can be held simultaneously because multiple potentialities can originate from one source. Chow can be himself or Mr. Chan or even an idealized Yuddy, or all three together. As in cubist painting, the figure can reflect various perspectives because it is not a static entity, but rather a captured moment in the process of building and rebuilding meaning. In this way, Chow can embody multiple characters at once because he is in the process of developing an identity, becoming the character who eventually arrives at *2046* in an ambiguous state, not a definitive endpoint.

Deleuze writes, "The present is the actual image, and *its* contemporaneous past is the virtual image, the image in a mirror" (*Cinema 2* 79). In this case, the mirror is altered as the question of pinning down an identity becomes elusive because the characters themselves represent the relay between the real and the imaginary. In her reading of Deleuze, Claire Colebrook makes the point succinctly when she writes "memory is the clearest case of the imbrication of the virtual in the actual" (80). In this case, Mrs. Chan and Chow simultaneously create the past and the present which exists somewhere both outside and inside their real selves. The place for *In the Mood for Love* in the trilogy is as just such a fantastic memory. As Mrs. Chan and Chow create a past that never existed, the film itself is a version of the past which never existed. It is not simply a memory, but an image representation of memory itself.

With its saturated color palate, undifferentiated sense of time and stylized slow motion, the film represents the very act of remembering in which some images stand out, others fall away and time loses its shape. The allegiance the characters have to a past love, the kind Chow will have for Mrs. Chan, can instead be read as a love of the past. It is the era as much as the person that represents love. Paradoxically, here the past is born as a response to the threat of the future. By creating a past, Mrs. Chan and Chow stall the inevitable future in which the discovery of their spouses' affair will likely end their own, lending the present an air of nostalgia as they are create moments in order to remember them later.

Of the films in the trilogy, *In the Mood for Love* has the most visceral feel of nostalgia. Referring to this quality, critic Stephen Teo writes, "In watching the film unfold, the audience itself is partaking in a ritual in transfigured time…each member of the audience, depending on their ages, could in theory go as far back in time as they wish to the moment that holds the most formative nostalgic significance for them." The film evokes nostalgia in a way that is non-specific and instead conjures feelings of a universal passed time that is glamorous and romantic. With this emphasis on nostalgia, we can tie the film to Hong Kong's recent political culture and the significance of evoking the past. Ackbar Abbas likens the phenomenon to creation in a space of disappearance. He writes, "The binarisms used to represent Hong Kong as a subject [East versus West or tradition & modernity] give us not so much a sense of déjà vu, as the even more uncanny feeling of what we might call the *déjà disparu*: the

feeling that what is new and unique about the situation is always already gone, and we are left holding a handful of clichés, or a cluster of memories of what has never been" (25). Wong responds to this phenomenon by creating layered histories for his characters to establish a vanished time and place, essentially a history created to service the films. He uses clichés to present a memory so real as to be taken for granted, so recognized that it must be true. If Yuddy in *Days of Being Wild* was denied identity, here we have a surplus of identity. For Mrs. Chan and Chow, this singular embodiment of rivaling personas, memory, nostalgia, past, and present must find some outlet, and it does, in a hotel room, number 2046.

2046 is a complicated number in Wong's world though it is often a site of creation. In the case of this film, it is a hotel room where Mrs. Chan and Chow co-write a martial arts serial. Chow moves into the room and the scene in which Mrs. Chan visits him for the first time begins with a short montage of Mrs. Chan alternately climbing and descending the stairs to the room in a cinematic version of Duchamp's *Nude Descending a Staircase* and a nod to the trilogy's cubist sensibility. The visit is brief and concealed behind a closed door and upon leaving, Mrs. Chan says again to Chow, "We won't be like them." Her insistence always leaves the couple in negation, what they will not be. Room 2046, however, provides a space where they create new identities by writing the martial arts serial.

When Mrs. Chan visits again, the camera follows her inside the room. Though the décor is period, this is a separate other space without time or place. None of

Wong's ubiquitous clocks haunt the room; instead, it is a step away from the present into a realm removed from the battle between the reality and role-playing that has defined the couple. Their relationship moves into a territory of creation through their writing as they invent yet another set of identities over which they have complete control. Mrs. Chan and Chow are happy in the room. In one shot, they smile at each other in a series of mirrors, three versions of Chow smiling contentedly at three versions of Mrs. Chan. Here they exist not in the actual or virtual, but in a separate state of possibility, or a state of becoming. It is their happiest time together, the synthesis of the layers of the past and present, the actual and virtual, coming together in a new, undefined way. The scene is composed of tracking shots and languid pans as the camera seems to sway in a breeze, watching the couple in the mirrors, reflected, faceted, multiplied. Eventually, however, the couple must leave the room and their affair ends on a note of melancholy nostalgia.

Making a connection between the characters in the three films, Chow is the gentleman to Yuddy's rogue and provides a sentimental memory to counter Yuddy's disappointed reality. *In the Mood for Love* is a romanticized version of a past whose impact on the future is uncertain and it prompts the question of whether romanticizing the past neglects the present or looks with ambivalence on the future? How does the constructed relationship between Mrs. Chan and Chow affect Chow in the future? How are these stories of disappointment and nostalgia tied into notions of temporality and identity? Wong begins to address this question by looking toward

the future, though still through the lens of the past. This process marks the last major

theme of the trilogy which the final film *2046* exemplifies. It is the element of

nostalgia and return.

  2046 fittingly begins with a scene that also ends the film. Chow is in Singapore

and meets a gambler who is called Black Spider but named Su Li Zhen (Gong Li).

Black Spider resembles Maggie Cheung's character from the previous two films not

only in name, but in appearance by wearing the same elaborate hairstyle and stylized

cheongsams. Su Li Zhen has a mysterious black-gloved hand and is silent about her

past. Chow asks her to go to Hong Kong with him, but she refuses so he leaves

alone. After arriving in Hong Kong, Chow goes to a nightclub and runs into a

woman named Lulu (Carina Lau) that he recognizes from his days in Singapore. She

pretends not to recognize him until Chow mentions that she once told him he

reminded her of a man she loved very much who died young. They spend the

evening together before Chow takes her back to Lulu room, number 2046 at the

Occidental Hotel. She's had too much to drink so Chow makes her comfortable on

the bed and leaves quickly. When he returns the next day to return her key, the

manager tells him she's left. Chow later discovers she was stabbed by her boyfriend,

who she referred to as a "legless bird" preoccupied by wandering. In *Days of Being

Wild*, Lulu, played by Carina Lau as well, was Yuddy's last girlfriend and we can take

the legless bird allusion to refer to Yuddy as it was a metaphor he often used to

describe himself. Here the connection between these two films, the first and last in

the trilogy, becomes apparent in a convoluted way through familiar characters who disappear only to reappear later. Chow asks to rent Lulu's room because he likes the number. The manager asks, "It has some significance for you?" Chow smiles and says, "I'm joking." It's an ambiguous response to an issue that has been critical in the trilogy and certainly we can't interpret the whole thing as a joke, but it again calls into question the true significance of 2046.

Chow eventually takes room 2047, which we might think beyond reason at this point, but he takes it with little thought, meaning to move to 2046 when it becomes vacant. Here the film begins to pile up coincidences, off-kilter substitutions and repetitions. Chow befriends a woman named Bai Ling (Zhang Ziyi) who he pays for intimacies, another example of the commodification of time that we saw in *Days of Being Wild*. Chow then takes up with the hotel proprietor's daughter, Wang Jingwen (Fay Wong). Jingwen has been conducting an affair with a Japanese man of whom her father disapproves. He orders her to cease the affair and in a state of pity she spends time with Chow. Together the two begin writing a martial arts serial that they title *2046*. Chow says, "That was my happiest summer ever," before adding, "But it didn't last." Chow travels to Singapore to look for "Miss Su." When he can't find her, he begins gambling every day and the person who comes to his rescue is Black Spider. The two meet in a dingy noodle stall next to the casino and begin a conversation. By coincidence, they find that they've just come from the same place. Chow tells Black Spider that he's lost a lot gambling and is trying to win enough to

return to Hong Kong. He tells her, "I didn't expect to win. I just hoped to get back my stake." By his "stake," Chow may be referring to his relationship with Mrs. Chan, and if not the relationship, then the memory of it. As Chow continues with the present, the thing most in jeopardy is the past. He strikes a deal with Black Spider to recapture what he's lost and she wins back his money. At the noodle stall, she gives him a folded stack of bills, sliding it across the table and keeping her small share. She says, "If you need be again…I'll be waiting here." She rises from the table and walks away and in a close up we see Chow turn his head over his shoulder as she walks by. "Hey," he says, "I still don't know your name." The scene cuts to a medium shot of Black Spider turning, then a close up on her profile. "It's Su. Su Li Zhen," she says. The shot is framed to conjure an iconic shot of Mrs. Chan in *In the Mood for Love* and the connection is immediate. Chow turns back to the table stunned and in voiceover recounts the story of Mrs. Chan, which he later tells Su Li Zhen after she returns. The two leave the noodle stall and the final shots of them walking away are the same shots that introduce them in the beginning of the film. They stand in a darker version of an alleyway in which Chow and Mrs. Chan once stood. Su and Chow share a desperate, empty kiss and part ways.

Concurrent to this story unfolding is the futuristic space of 2046. It is a place, we are told at the beginning of the film, where people go to recapture lost memories because nothing ever changes. Nobody knows if it's true because nobody ever returns, save for one person, another version of Chow, the Japanese character Tak

who is dressed like a futuristic samurai. 2046 is represented by a high speed train that travels through a hi-gloss cityscape. The interior of the train is the only image we have of the place called 2046. Tak is the only traveler on the train and is a version of Chow taken from the martial arts serial Chow wrote with Jingwen. Tak/Chow is returning from 2046 for "vague reasons," though he seems to be returning because he didn't find the woman he truly loved. We get the sense that like Yuddy, Tak's destiny is to remain on the train forever.

The trilogy leaves us wondering about the significance of 2046. In the films, it is a number of things: the future represented by the train; the place where people go to reclaim lost memories; the name of the martial-arts serial that Chow and Jingwen write; the number of Chow's room in the Occidental Hotel; and the number of the room Chow once shared with So Lai-chun in *In the Mood for Love*. Outside of the film, it is also the last year of the fifty year period of dormancy between British and Chinese rule over Hong Kong. With all of these associations the issue becomes relating them back to Wong's main themes and making these connections relies on Ka-Fai Yau's interpretation of thirdness.

In reference to Deleuze's concept of thirdness, Yau writes "Deleuze's appropriation of [C.S.] Peirce's concept of thirdness is an endeavor that aims at a "beyond" that disrupts binary reductions of things. This endeavor sets out to enter the state of B/becoming – reading and deciphering" (544). Yau interprets these three images as the essence, the other and their relational quality, thirdness. In Wong's

trilogy, we might read them as Yuddy, Chow and Yuddy/Chow where Yuddy stands

as the essence, Chow as the other in relation to Yuddy, and Chow/Yuddy as the

interconnectedness of all three. Through the lens of thirdness, analyzing

interconnectedness becomes a way of making meaning. For Yau, this is one of the

projects of Hong Kong cinema, "The conception of a new Hong Kong cinema itself

is an endeavor to initiate thirdness out of prevailing representations of both Hong

Kong cinema and other Western cinemas" (543). Thus it can be argued that Wong's

films portray the attempts of characters to establish their own identities within a

shifting temporality as well the attempt of the films to establish their identities within

a shifting geohistorical situation. In both cases, the issue is to get at identity through a

sense of thirdness, or relation and connectivity. Wong complicates connectivity

through secrecy, vitruality and return.

Yau identifies thirdness as a personal and political space of becoming, of the

movement from one identity into another. In this space, time loses its linearity.

Connections are made based on what is possible, in the most unrestrained sense.

Leaving aside the political aspect and just looking at the films, we see this in the

myriad of coincidences throughout the trilogy. How can it be that each film features a

different character named So Lai-chun? How does this character intersect with Chow

in various versions throughout time and place? Time is divorced from any sense of

chronology and instead becomes a meditation on connection, particularly as it is often

a missed connection. When Yuddy tells So Lai-chun that they will be "one minute

friends" it's a minute that eventually extends throughout the course of all three films in one character or another. To expand one minute into something much larger is Wong's triumph over the tyranny of time while still being subject to it because eventually all periods of time must end. For Wong, however, deadlines are not endpoints but instead reflective surfaces that prompt a return investigation. Wong's characters exist in an ambiguous state while forever traveling in pursuit of an identity that they are eternally creating and recreating. Like Hong Kong itself, Wong's characters struggle with the idea of sovereignty as they exist within overlapping identities. Wong's characters are defined by misaligned connection, by the continual processes of acceptance and rejection in which their power is diffused because it is misplaced. Wong's characters fundamentally cannot exist both within a state of thirdness and alone, yet they attempt to live in this paradox because it expresses the vitality that unity alone cannot provide. They exist in the act of relating, not in the relation itself.

The relentless making and remaking of images is the inevitable result of the passage of time, which in this case means the characters see themselves in the past and because the whole past can never be known, they live in secrets and one step behind the actual. Colebrook summarizes the point succinctly, "We repeat the past in order to destroy the present" (82). In Chow's case, to repeat the past is to be forever stranded on the train to 2046, a journey which is somewhere between memory and the future. For Chow, the compulsion to return to the past, a past which coexists

with the present and the future, is a compulsion to build, destroy and rebuild an identity while simultaneously denying the power of the present or the authority of the future. This constant recreation of the past is the very thing that holds the present in limbo. The present and the past exist in a third state which is always emerging. Chow is always emerging, however Chow's continual emergence is not necessarily an evolution because to move forward does not mean to progress.

Before Yuddy dies on the train in *Days of Being Wild*, he asks his friend to tell So Lai-chun that he "remembers nothing." When Chow returns from 2046, it is because he can't recover a lost memory. They are both left cherishing the past but denied by it. In the form of secrecy, confusion between the actual and the virtual, or nostalgia, the past repeatedly betrays Chow. His reliance on a faltering history renders him powerless and adrift on a train with no real destination. He loses and wins back his stake, but getting it back means getting it back in a different form. Winning and losing are only ways for Chow to exchange the cards in an attempt to reassemble the hand he started with. Chow finds that there is no such thing as recovering a lost memory because once it's gone, it's gone forever. If that memory is attached to a person or a time, they disappear with it. There is no place that is the same for Chow as where he started because he is changed by the journey. As a title card at the end of *2046* reads, "He didn't turn back. It was as if he'd boarded a very long train heading for a drowsy future through the unfathomable night." For Chow, the place of connection is unavoidable but disillusioning, and seemingly without end.

Temporality and identity become intertwined as a meditation on the paths Chow

continually retraces in an effort to find his place in a shifting time.

Works Cited

2046. Dir. Wong Kar-wai. Perf. Tony Leung, Li Gong, Faye Wong, and Ziyi Zhang. 2004. DVD.

>   Sony Pictures, 2005.

Abbas, Ackbar. *Hong Kong: Culture and the Politics of Disappearance*. Minneapolis: University

>   of Minnesota Press, 1997.

Chow, Rey. "Nostalgia of the New Wave: Structure in Wong Kar-wai's Happy Together."

>   *Camera Obscura* 14.42 (1999): 31-51.

Chow, Rey. "Sentimental Returns: On the Uses of the Everyday in the Recent Films of Zhang

>   Yimou and Wong Kar-wai." *New Literary History* 33 (2002): 639-654.

Colebrook, Claire. *Deleuze: A Guide for the Perplexed*. London: Continuum International

>   Publishing Group, 2006.

Days of Being Wild. Dir. Wong Kar-wai. Perf. Leslie Cheung, Maggie Cheung, Carina Lau, and

>   Rebecca Pan. 1990. DVD. Kino Video, 2004.

Deleuze, Gilles. *Cinema 1: the Movement-Image*. Trans. Hugh Tomlinson and Robert Galeta.

>   Minneapolis: University of Minnesota Press, 1986.

Deleuze, Gilles. *Cinema 2: the Time Image*. Trans. Hugh Tomlinson and Robert Galeta.

>   Minneapolis: University of Minnesota Press, 2007.

In the Mood for Love. Dir. Wong Kar-wai. Perf. Tony Leung and Maggie Cheung. 2000. DVD.

>   Criterion, 2002.

Teo, Stephen. "Wong Kar-wai's *In the Mood for Love*: Like a Ritual in Transfigured Time."

    Senses of Cinema 13 (2001): no pagination.

Yau, Ka-Fai. "3rdness: Filming, Changing, Thinking Hong Kong." *Positions* 9.3 (2001):

    535-557.

Corn, Free Trade and the Mexican Quest for Food Security

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Abstract

My research will examine the origins of the current corn crisis in Mexico. The rise in corn prices are not the result of shortages in production, but the outcome of increased demand stemming from the production of biofuels. I hypothesize that in an age of trade deregulation and food riots, food security remains a possibility for Mexico. I propose that by examining international conditions, free trade policies and the civic response to the 2007 Mexican neoliberal[1] tortilla crisis, we can understand not only the current corn crisis but also the larger crises of food entitlement currently afflicting the developing world. The goal of this study is to contribute to the evaluation of the impact of trade liberalization on corn production and Mexican food security.

Introduction

"When you talk about Mexico, when you talk about culture and societal roots, when you talk about the economy, you talk about the tortilla. Everything revolves around the tortilla"[2]

Corn is a critically important agricultural product for Mexico. Corn is the backbone to a rich cultural heritage and a staple to Mexican communities. Corn is also the most essential crop in Mexico in terms of cultivated land, volume of production, production value, and number of producers. (de Ita, 2007). Corn has a ten-thousand year history and today corn continues to be the "anchor that enables indigenous communities to preserve their way of life." (Carlsen, 2004, p. 1).

The Mexican government has maintained more trade agreements than any other country in the world, including the world's largest trade agreement: the North American Free Trade Agreement (NAFTA) (Targowski, 2003). NAFTA is a trade bloc (a free trade area formed by one or more tax, tariff and trade agreements) composed of three countries: Canada, the United States, and Mexico. NAFTA is a unique trade agreement as it is the first of its kind to treat two developed countries, Canada and the US, and the comparably under developed country of Mexico, as equals. Mexico's

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[1] Neoliberalism is broadly referred to as a set of economic policies championed by Western governments over the last 25 years. Commonly neoliberal policies include the abolition of government intervention in economics and the creation of free trade markets.

[2] Barry, Tom. (1995). Zapata's Revenge: Free Trade and the Farm Crisis in Mexico. Interhemispheric Resource Center. Massachusetts: South End Press.

agricultural sector is not equivalent in terms of technology, production policies, economics or government support systems (i.e. the provision of subsidies) with the US and Canada. (de Ita, 2007).

The NAFTA agreement received congressional approval in the US, Canada and Mexico in 1993 and was implemented in January 1, 1994. Under this agreement, many agricultural products were given varying schedules for gradual liberalization, the longest and most gradual of these schedules was the 15 years allotted for corn. This lengthly schedule was set with the intention that corn would have more time to adjust to open market forces (de Ita, 2007). In 2008, agricultural trade between the NAFTA member countries is scheduled to be fully liberalized, including corn (de Ita, 2007). This means that most trade between the US, Canada and Mexico will be tariff free, with the exception of certain products defined in the original negotiations (not to discussed in this study).

Biofuels have been a contributing factor in global food price increases. In April 2008, the World Bank linked the current food crisis directly to the rise in the production of biofuels. The World Bank details that the use of land for biofuels, and not for food for human consumption, has exponentially increased the global prices for staple foods, like corn. Biofuel production has increased as a response to demand from industrialized nations, like the United States for an alternative to foreign oil. (Mitchell, 2008).

As biofuel production has increased, the price of food worldwide has skyrocketed. In the last three years the Institute for Food and Development Policy (2008) reported an increase of 83% in food prices worldwide which is part of a larger increase of 140% from January 2002 to February 2008 (Peabody, 2008; Mitchell, 2008). The World Bank reports that these substantial and rapid increases in food price cannot be compared to any other situations since 1973. In 1973 food prices more than doubled within the span of a twelve month period. (Mitchell, 2008). Food First speculates that when tariffs on corn are fully liberalized under NAFTA in 2008, Mexican corn farming communities will experience further price hikes. Subsistance farmers in particular are affected by

price fluctuations because they lack the assests and capability to readily "switch production to more profitable crops for export and are taken advantage of by intermediary buyers" (Henriques and Patel, 2004, p. 1). The Americas Program maintains that in 2007 Mexico experienced a 42% to 67% increase in tortilla price which challenged community access to that corn. This period became known as the Tortilla Crisis (de Ita, 2007). Holt-Gimenez & Peabody (2008) of Food First further suggest that the international conditions leading to price inflation of tortillas included, but was not limited to; major droughts; low grain reserves; steep rises in oil prices; and the reallocation of land from food to biofuels production.

Public response to the crisis is increasing in tandem with food prices. Peabody (2008) reports that food riots are occurring throughout the world. Public protest during the Mexican Tortilla Crisis spurred a government investigation of transnational companies as major contributors to the international price increases. As global food and corn prices continue to rise, Mexico could experience a rise in food protest. What role do transnational corporations play in the current food crisis? Are neoliberal policies, in particular commodity trade liberalization, important factors in the Mexican Tortilla Crisis and the greater food availability crisis? In order to address the specific effects of neoliberal policies, market control by transnational coportations, and global biofuel demand we must first analyze the forces shaping food security in Mexico

Food Security

The 1996 World Food Summit defined food security as a situation "when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food, and to meet their dietary needs and food preference for an active and healthy life" (Food and Agricultural Organization [FAO], 1996, p. 1). The Food and Agriculture Organization (FAO) identifies three underlying aspects to this definition: effective supply of food, the ability to acquire food, and the reliability of food distribution. Food supply and the ability to secure nutritious food resources by

both individuals and communities are fundamental to the achievement of food security worldwide. This concept is a guiding model to the work of economist Amartya Sen and his 'entitlement approach' to food security.

Amartya Sen's Entitlement Approach

The current global food crisis, and specifically the Mexican Tortilla Crisis, are issues of food security and as such will be analyzed from the perspective of Amartya Sen's theory of entitlement. The economist Amartya Sen (1981) pioneered the entitlement approach to food security which views food security as not solely a function of supply and demand but a function of threatened entitlement relations. According to Sen (1981) entitlement relations are part of larger ownership relations where one set of ownerships are connected to another through "certain rules of legitimacy" (p. 1). These rules of legitimacy may be production, trade, and political entitlements. Trade entitlements, for example, are commonly recognized when an individual purchases a banana using currency. That individual's entitlement to currency comes from employment. This individual's income from employment is recognized as a legitimate means with which to acquire bananas. Therefore, the ownership of the banana is established and legitimized. An important advantage to Sen's entitlement approach is the "comprehensive account of a person's ability to command commodities in general and food in particular" (Sen, 1981, p. 156).

Entitlement relations are essential in understanding the relationship between the Mexican people and the tortilla. The primary factors responsible for the 2007 Tortilla Crisis, as well as the current global food crisis, should be analyzed from the perspective of entitlement relations and not consider solely the result of food shortages (Sen, 1981; Hidler, 2007; Henriques and Patel, 2004; Mitchell, 2008; Navarro, 2007). To understand this entitlement crisis it is necessary to break away from the traditional way of thinking in "terms of what exists" and ask instead who is in "command of what" (Sen, 1981, p. 8).

Agricultural Policy in Mexico

The Mexican Revolution

Mexican peasant farmers or campesinos[3] continue to view land and agriculture as essential to their survival. To Mexican campesinos, land represents their livelihood, food security and survival of their families and communities. The loss of land and the subsequent inability to sustain themselves commonly results in migration to the United States or to Mexican urban centers where work may be more plentiful. "The land is all we have, all we know. Without the land, what will happen to us and our children? We will be begging on the streets of Mexico City or working as peones like our grandfathers did" (Barry, 1995, p. 4). The loss of entitlement to land is not a new problem faced by campesinos, but rather the continuation of national economic and political policies stemming as far back as the colonial period. (Barry, 1995).

The long period of colonization in Mexico created high levels of dissatisfaction within campesino communities which was one aspect leading to the Mexican Revolution in 1910. A central figure in the Revolution was the campesinos' hero Emiliano Zapata, who played a key role in inspiring and organizing the revolutionary movement. He taught campesinos that they had political rights to their ancestral lands and encouraged them to fight for tierra y libertad (land and liberty). Many campesinos took up arms and became known as Zapatistas. The Zapatistas and other revolutionaries successfully overthrew the Porfirio Diaz dictatorship (1877-1910) in a struggle which represents the first time that campesinos were able to link their agrarian needs to their political needs. The importance of land and liberty for campesino communities has only increased over time as post revolutionary governments falter in fulfilling their promises to the campesinos for the reclamation of ancestral community lands. Successive governments have regarded land distribution

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[3] *Campesino* is used interchangeably with *peasants* to signify Mexican small scale private farm workers.

as a way to pacify the campesinos and ensure political support. (Barry, 1995). Today, campesinos

retain very little control or entitlement to the land they so vitally depend on.

Land Reform, Market Reform and Privatization

The Mexican Constitution of 1917 was the product of a compromise between the victorious

factions of the Mexican Revolution. This new constitution incorporated Article 27, to meet the

demands of rural agricultural producers for equitable access to land. Article 27 specified the

reestablishment of the ejido system, a land tenure system which had been in use since pre-

Columbian times. The ejido system would redistribute land held by haciendas or latifundios[4]. These

haciendas were large low-cost labor plantations that allowed the state to exercise political control in

rural areas. This control typically resulted in the oppression of campesino communities through

minimum subsistence levels and lack of political power while simultaneously contributing to the

increased wealth of hacienda holders. The Rural Development Institute (2004) reports that prior to

the 1910 Revolution, "over half of Mexico's land was controlled by fewer than 11,000 haciendas,

and a mere 834 families owned over 130 million hectares of land" (Brown, 2004). Haciendas were

large low-cost labor plantations that allowed the state to exercise political control in rural areas. In its

place, the ejido system installed a community-based land sharing system allowing campesinos to

farm plots of land expropriated from haciendas. The land reform promised to be an important

improvement for campesino communities. It was not until the Lazaro Cardenas government in the

1930s that land reform was implemented and the ejido system widely enacted. Although the ejido

system had been an improvement on the hacienda agricultural system, this reform only granted

ejidatarios political entitlement to their land--not legal title. Without ownership ejidatarios held

limited use rights over an indefinite period of time; the land could be transferred to descendants but

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[4] *Haciendas* or *latifundos* are large agricultural plantations or estates with tenured campesinos.

could not be used as collateral for loans or be sold. This ejido system affected campesinos'

participation in the domestic market by limiting their exchange entitlements from land and labor

power to only labor power. During Cardenas' government, the ejido agricultural system comprised

of approximately 103 million hectares of Mexico, or roughly one half of the country. (Skidmore &

Smith, 2004).

Lazaro Cardenas also created the National Company of Popular Subsistence (CONASUPO)

to regulate the country's agricultural markets. Its responsibilities included storage, importation, and

distribution of staple crops such as grains and corn to prevent private monopoly control and

commodity speculation over these essential products. CONASUPO additionally functioned as the

primary supplier and manufacturer of nixtamalized (pre-cooked) corn. CONASUPO controlled corn

and tortilla prices to guarantee "producers a price for their products and consumers a maximum

purchase price" (de Ita, 2007, "The Neoliberal Tortilla Crisis" section, para. 1). Furthermore, corn

and tortillas were supported by government subsidies, a very important function in a country with

low wages.

Even with the dramatic ejido land reforms and the creation of CONASUPO, many issues

between the Mexican government, the rights of the land holders, and agricultural workers continued

to emerge throughout the twentieth century. Since the 1940s, the Mexican government has made

efforts to intervene in the country's struggling agricultural system by use of reforms such as subsides

and governmental programs. Despite these interventions, no dramatic improvements were

experienced; in fact, one study reported that Mexican corn production grew by only .4% between

1977 and 1978, while the total area planted decreased by 1.5 million hectares (Appendini and

Liverman, 1994).

In 1982, the Mexican government tried again to increase production of staple crops such as

corn. Subsidies to farmers and consumers were increased through a food policy program called the

Sistema Alimentario Mexicano (SAM). However, the political will to sustain SAM's agricultural support programs failed and, following the Mexican debt crisis which struck in August of 1982, the SAM program was abandoned. That same year, corn production fell by one-third (Appendini and Liverman, 1994, p. 6).

The situation continued to worsen through the 1990s. Mexico struggled to balance not only the rights of workers and industry, but the large external debt accrued through the economic down-turn of the 1980s. Successive neoliberal governments compounded external debt and, in 1992, Mexico amended Article 27. Although no significant parcels of land had been redistributed to campesinos since the Cardenas administration, the Rural Development Institute (2004) suggested that the Carlos Salinas de Gortari administration amended Article 27 in order to make further land redistribution opportunities impossible (Brown, 2004). Salinas reformed Article 27 thereby opening ejido land for privatization in the hopes that commercial agriculture would replace subsistence agriculture. The neoliberal policies championed by Salinas and institutionalized by NAFTA and international financial institutions such as the World Bank and the IMF, were a driving factor in the elimination of government subsidies and the privatization of CONASUPO. In 1998, as part of NAFTA's process of market deregulation, CONASUPO was dismantled and privatized into an assortment of grain distribution giants such as Maiz Industrializado, Grupo Maseca, and Cargill (among others). The privatization of CONASUPO had disastrous affects on communities as well as corn production and trade. First, corn was liberalized over a period of only 30 months, instead of the negotiated 15 years scheduled by NAFTA. Secondly, by dismantling CONASUPO, the Mexican government encouraged the creation of large scale tortilla flour processing companies which undercut traditional tortilla processes in small-scale local mills and further monopolized the industry. (Appendini, 1992).

Government intervention in the Mexican agricultural sector, Appendini (1992) stresses, has caused further marginalized the subsistent peasant agricultural sector. Peasant agriculture was marginalized because, from the viewpoint of policy makers, the ejido system was not competitive. 85 % of agricultural workers were ejidatarios who held approximately less than 5 hectares of land each (de Ita, 2007). In order to boost production of staple crops, the government increased subsidies through the expansion of a rural public credit system (Banrural[5]), revised support prices through the National Company of Popular Subsistence (or CONASUPO), and invested in rural infrastructure. (Appendini, 1992). These subsidies were meant to encourage investment in rural infrastructure and like other intervention attempts, were largely unsuccessful. (Appendini, 1992).

The Mexican government has made efforts to adopt and integrate more mainstream neoliberal economic policies in an effort to increase competitiveness in the international market. Successive Mexican administrations have continued to promoted agricultural polices meant to transition the largely subsistence farming sector into a more modern agricultural system, similar to those of other industrialized nations (i.e. the United States). Barry (1995) points out that, despite privatizing the agricultural and social sector, these agricultural modernization and industrialization strategies have "failed to move Mexico beyond the rural problems of the third world. Today more than one-fifth of Mexico's workforce is employed in agriculture and there are more campesinos than existed at the time of the Mexican Revolution." (p. 2). Subsistence agriculture survives in Mexico and the deprivation of campesinos has only increased since the implementation of NAFTA.

Free Trade and Import Dependency

NAFTA and Free Trade In Agriculture

The North American Free Trade Agreement (NAFTA) was established to increase international trade between the three member countries (Canada, the United States and Mexico).

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[5] Banrural is a rural development bank which participated in unprofitable agricultural lending before going bankrupting in 2001.

When the agreement came into effect in January 1994, a process of market deregulation was set in motion. Many of the trade barriers between the member nations were removed immediately, while others were given slow liberalization schedules as long as 15 years in order to allow domestic economies time to adjust. By the year 2009, the economies of the three member states would be unified in one large market.

Proponents of NAFTA assumed that Mexico would have a comparative advantage in the production of staple crops because of the country's large agricultural sector and overall lower production costs in comparison to Canada and the US (Fitting, 2007). However, it was considered that Mexico's agricultural sector would experience a period of adjustment before it could effectively compete with the much larger and better capitalized agribusinesses of the US and Canada. Under NAFTA, staple foods markets were to undergo a gradual liberalization (removal of tariffs and quotas) lasting between 3 to 15 years. This gradual schedule was conceived to allow for the slow adjustment of staple food production into the open market. Corn, to be discussed in further detail below, was allotted the longest transition period and one of the smallest stipulated import quotas: 2.5 million tons gradually increased by 3% per year and corn tariffs initially at 215% would be gradually reduced to zero (de Ita, 2007).

This incremental liberalization schedule for corn was not respected by the Mexican government. Although NAFTA granted Mexico 15 years of gradual elimination of trade barriers in corn, the Mexican government ignored import quotas and pushed the commodity into the open market over a drastically shorter period of only 30 months. This compression in the deregulation schedule resulted in the widespread failure of small corn farms throughout Mexico because they could not compete with the heavily subsidized corn imported tariff free from the US. NAFTA is only one of many policies and policy changes which have exacerbated the problems facing the small corn farmers over Mexico's long agricultural history. As Henriques and Patel (2004) suggest, it is

therefore difficult to attribute all negative impacts on Mexico's rural poor to one particular free trade agreement.

NAFTA and the 1994 Zapatista Uprising

Not all of the problems facing the rural poor in Mexico stem from NAFTA. There are many other factors and conditions. Henriques and Patel (2004) observe that while NAFTA is part of a wider constellation of policies and policy changes that affect the rural poor, this agreement has exacerbated the problems facing campesinos. During the North American Free Trade Agreement (NAFTA) negotiations, corn was one of the main concerns for Mexicans because, based on the theory of comparative advantage, Mexican corn would not compete well with US or Canadian corn. (de Ita, 2007).

Campesinos, Barry (1995) suggests, due to their intense involvement in the 1910 Mexican Revolution, recognize that local problems cannot be changed without first changing the national policies that affect them. When NAFTA took effect on January 1, 1994, the Mexican government was faced with an armed rebellion of campesinos calling themselves Zapatistas, the like of which had not been seen since the Revolution. In the state of Chiapas, in South East Mexico, the Zapatista National Liberation Army (EZLN) made a dramatic entry into Mexican politics and society by letting it be known that:

> The plight of the peasantry could not be ignored. 'Don't forget us,' the rebels were saying,
> 'you depend on us for your political and economic stability. We, the campesinos of Mexico,
> grow your corn, cut your cane, and pick your coffee. We have not gone away during the past
> 75 years of post-revolutionary governments, and we will not go away with neoliberalism and
> free trade.'
>
> --Barry, "Zapata's Revenge," 1995, p. 3.

The Zapatistas were the loudest and better known of NAFTA's protestors. They spoke on behalf of all campesinos who felt left out of their government's development plans. The Zapatistas revived the cause of Zapata because they were forced into an international market in which they must now compete with US agricultural imports, exports, and subsidies provided to a very productive agricultural sector. (Barry; 1995)

Mexican Corn Imports and Market Dependency

Today, the United States produces more than 70% of the world corn market (Malkin, 2007). In 2007, the US harvested 280 million tons of mainly industrial grade yellow corn. In the same year, Mexico produced only 22 million tons of white corn. Although Mexico is the fourth largest producer of corn in the world, the country must import approximately 25% of its corn needs from US fields. (Malkin, 2007).

Figure 1:
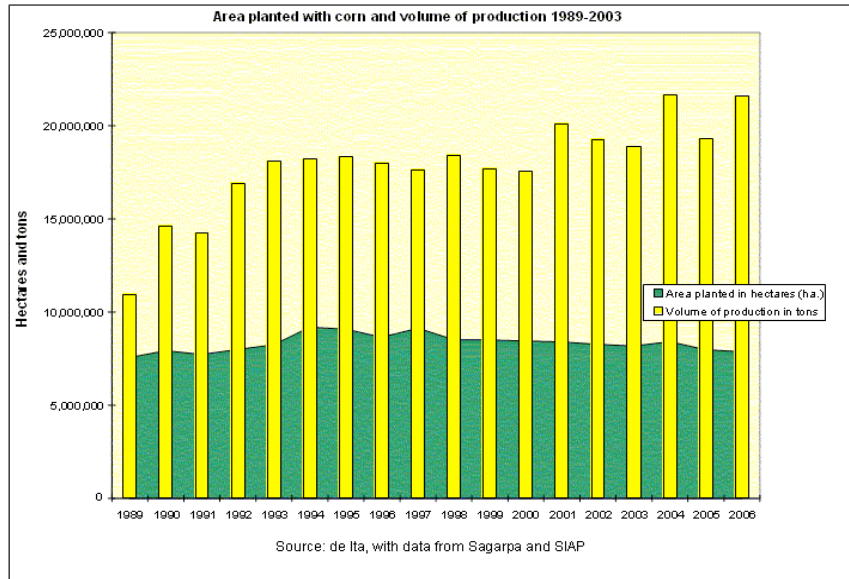
Source: Sagarpa and SIAP; De Ita, A. (2007). Fourteen Years of NAFTA and the

Tortilla Crisis. Americas Program. Interhemispheric Resources Center. "Area planted

with corn and volume of production (1989-2003)":

Contrary to pre-NAFTA assumptions corn production within Mexico has not decreased. The total area planted has remained stable, or even declined slightly while output has increased. "This stability in corn production despite [initially] lower prices is inconsistant with the economic laws of supply and demand" (Henriques and Patel, 2004, p. 7). Henriques and Patel (2004) have attributed this stability to a variety of factors such as the strong cultural tradition of the crop, lack of alternative crop options, improved yeilds, the modernization of production practices, the use of fertilizers, pesticides, and machinery, and the feasibility of expansion and capitilization of land under cultivation. These factors are all influencial in the stability of corn production by Mexican farmers despite lower prices in the global market. "Given the lack of alternatives and the multi-functional nature of corn production in campesino life, many have reacted contrary to 'market expectations'-- they are sowing more corn, not less" (Henriqes and Patel, 2004, p. 8).

Mexico's growing livestock sector has become the main destination for imported corn. Prior to 1996, Mexican farmers did not routinely feed corn to livestock. This practice was due in part to the cultural identity of corn as a traditional human food staple. When the Mexican government lifted this ban on corn destination it came with unforeseen consequences to the domestic corn market. In 2006, a record 21.9 million tons of corn were produced in Mexico. That same year record volumes of corn were imported into Mexico's domestic market: 7.3 million tons of yellow corm and 254,000 tons of white corn (de Ita, 2007). These imports were above NAFTA's stipulated quotas, but Mexican corn producers were unable to expand production to meet the new demand, particularly
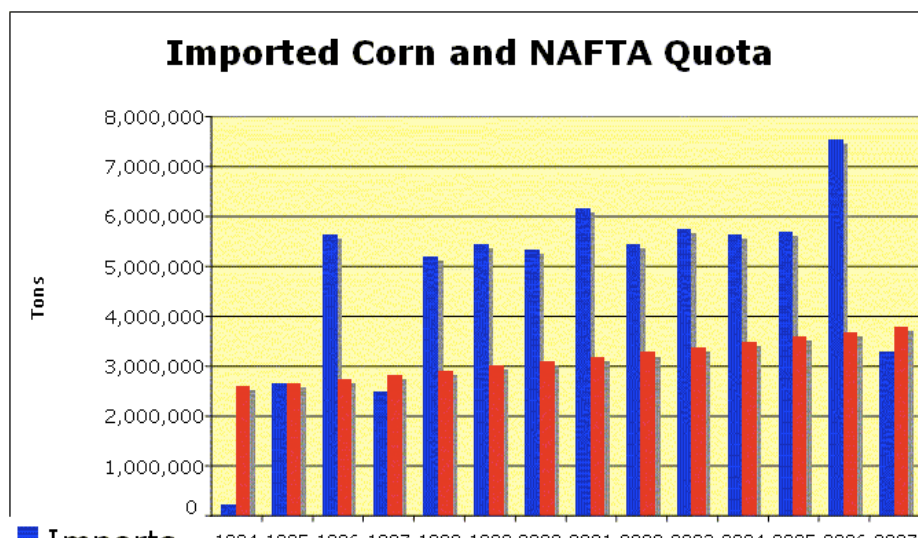
when faced with the low price of subsidized US corn. The US is able to set the international price of

corn low, claims Henriques and Patel (2004), because they have market control as the largest

producer and exporter of the crop. Additionally, the US is able to provide cheap corn through direct

and indirect subsidies. In 2000, US corn producers received 10.1 billion USD which, in that year,

equaled 10 times the Mexican government's entire budget for agriculture (Oxfam International,

2003). The substantial increases in corn imports and the inequality in subsidies provided by the US

government, have furthered the control of food transnational corporations over the Mexican corn

market. (Henriques and Patel, 2004; Malkin, 2007; de Ita, 2007).

> Figure 2:
>
> Source: De Ita, Banxico and NAFTA; De Ita, A. (2007). Fourteen Years of NAFTA
>
> and the Tortilla Crisis. Americas Program. Interhemispheric Resource Center.
>
> "Imported Corn and NAFTA Quota":

The Mexican government has also eliminated agricultural state regulatory agencies like

CONASUPO and has accelerated the elimination of trade barriers on corn disregarding the gradual

15 year liberalization schedule established under NAFTA. Ita (2007) states that this action shortened

the period of transition and has consequently caused corn imports to "exceed the negotiated quota,

and the extra imports [were not] charged the corresponding tariff. As a result, nearly 3.2 million

producers, the majority of the small-scale producers in the country, were denied the promised

protection." (de Ita, 2007, "Corn Imports Under NAFTA" section, para. 1). Navarro (2007) claims

that between 1994 to 2001 alone, imports in excess of the quota flooded the Mexican market in large

amounts, approximatly 13 million tons (Navarro, 2007). Many small corn farmers are now unable to

compete with the cheaper US imports flooding the market, while larger producers have expanded

their share of the domestic market as small farmers are forced out of buisness, (see figure 3). (De Ita,

2007). Since Mexico began importing corn from the United States, Mexican producers have had to compete directly with US producers selling at international prices which have had an upward tendancy since 2006.

Figure 3:

Source: De Ita and Sagarpa; de Ita, A. (2007). Fourteen Years of NAFTA and the Tortilla Crisis. Americas Program. Interhemispheric Resource Center. "Real Corn Prices" in Mexico:

Real corn prices for imports into the Mexican market. Half of the imports in 2001 were bought (primarily) by three large world cartels operating in Mexico: Cargill-Continental; ADM -Maseca, and Minsa-Arancia-Corn Products International. (de Ita, 2007).

Global Price and Biofuel Demand

Global Price Increases
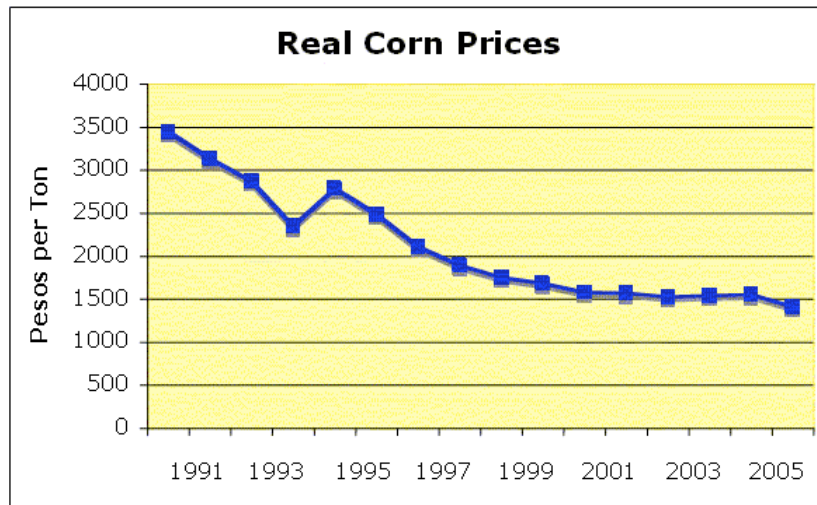
The price of food worldwide has skyrocketed. In the last three years the Institute for Food and Development Policy (2008) reported an increase of 83% in food prices worldwide (Peabody, 2008). The World Bank index for food prices documented a 55% increase from April 2007 to April 2008. In the first four months of 2008 prices increased by 20.9%, and in February alone by 9.5% (Mitchell, 2008). These substantial rises in global food prices are part of a larger increase of 140% from January 2002 to February 2008 (Mitchell, 2008). The World Bank reports that current rapid food price increases cannot be compared to any other situation since 1973. In 1973 food prices had more than doubled within the span of a twelve month period. (Mitchell, 2008).

Figure 4:

Source: World Bank DECPG; Mitchell,

Donald (Prepared by). A Note on Rising Food Prices.
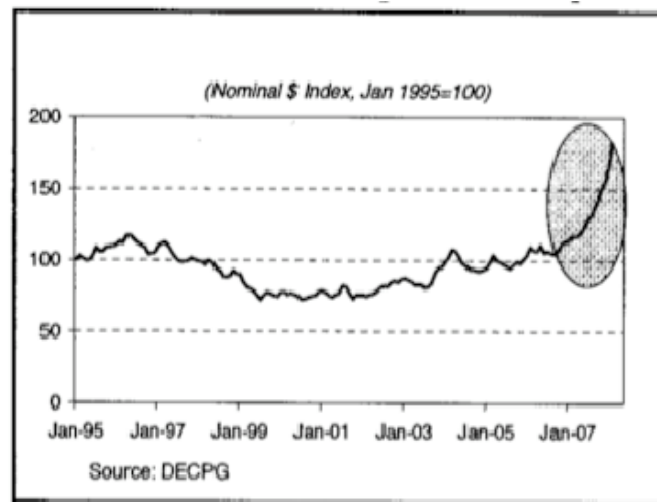
World Bank Report. April 8, 2008

Biofuel Production

One primary explanation for rising international corn prices can be found in the rising

demand for biofuels. Global industrial corn consumption from 2004-2007 increased by 33 million

tons and global stock reserves declined by 27 million tons in the same period (Mitchell, 2008). The

World Bank reports that this appreciative decline in global stock reserves is the result of the recent

acceleration in the production of biofuels. If it was not for this rise in biofuel production, the World

Global biofuel production tripled between 2000 and 2007
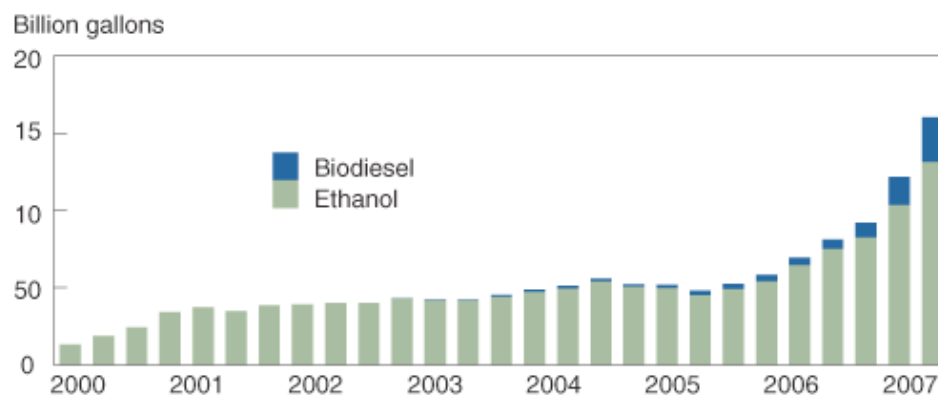
Source: International Energy Agency; FO Licht.

Bank claims, recent price increases would have been moderate. (Mitchell, 2007).

Biofuel production has distorted the food market by diverting crops away from their use as

food towards fuel production. This dynamic is currently causing large land use shifts. Across

Mexico, farmers are being encouraged to use farm land for production of industrial yellow corn

specifically for the manufacturing of biofuels. This has led to a dramatic decrease in agricultural

products available to serve as food for human consumption. Taylor (2007) reports that this

replacement of edible white corn crops with industrial yellow corn is reducing the amount of edible

corn available on the market. The World Bank (2008) states that today 11% of global corn

production goes towards biofuels (Mitchell, 2008). The majority of the increase in global corn

output from 2004 to 2007 went towards biofuel production in the US. As a result, global corn

consumption increased by 33 million tons. This increase caused global stocks to decline by 27

million tons and corn prices to more than double. (Taylor, 2007).

Figure 5:

Source: International Energy Agency and FO Licht; Coyle, William. (2007) "The

Future of Biofuels: A Global Perspective". Amber Waves.

Despite recent evidence form the World Bank suggesting biofuel production as the root

cause for the global food crisis, "political leaders seem intent on suppressing and ignoring the strong

evidence that biofuels are a major factor in recent food price rises," states Robert Bailey, policy

adviser at Oxfam International (Chakrabortty, 2008, para. 8). Oxfam International believes that

politicians are concentrating on keeping industry lobbyists happy while people in developing

countries are unable to afford enough to eat (Chakrabortty, 2008). President Jimmy Carter warned

Americans in 1977 that "balancing energy demands with available domestic resources would be an

effort the 'moral equivalent of war'" (Runge, 2007, "The Ethanol Bubble" section, para. 1). The

World Bank maintains that this situation is currently pushing 100 million people below the poverty

line worldwide (Mitchell, 2008). The response from US President George W. Bush has been to

blame rising food prices on higher demand from India and China (Chakrabortty, 2008). The World

Bank counters that rapid population growth in India and China is not the responsible factor in

"global grain consumption and was not a major factor responsible for the large price increases."

(Mitchell, p. 3). The World Bank restates that the biggest impact on global price increases is the

result of US and European Union's demand for alternative means to end foreign oil dependency.

(Mitchell, 2008).

Biofuel production has distorted the global food market and is a major contributor to food price increases within Mexico. Roig-Franzia (2007) suggests that there is a universal consensus by Mexican communities that the demand for biofuels from industrial nations is the root cause of tortilla and corn price increases within Mexico. "Since many of the poorest people in Mexico engage in corn production, it serves as a barometer for the condition of [one of] the most marginalized groups in Mexican society'" (Henriques and Patel, 2004, p. 1).

The Tortilla Crisis of 2007

In tandem with global food prices, corn prices have increased rapidly in the international market. The international price of corn went from 120.8 USD per ton to 177.16 USD per ton from September 2006 to February 2007 (de Ita, 2007).

Corn Prices 2006-2007

	May-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07
National	138.1	138.1	156.1	156.1	275.23	275.23	321.1
International		120.08	150.39	164.17	160.63	164.96	177.16

Source: de Ita, with data from producer organizations, SNIM, and USD
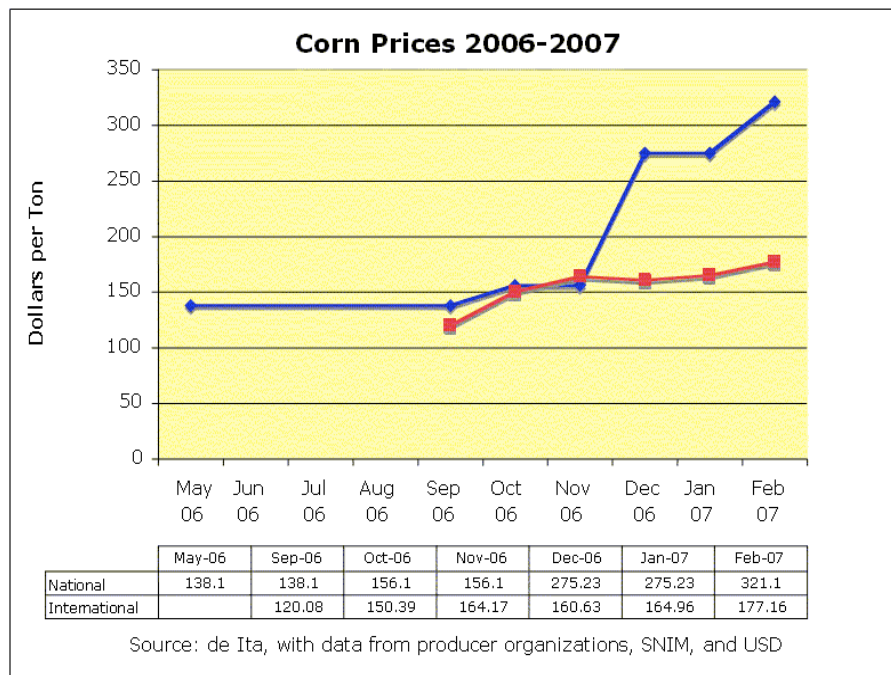
Figure 6:

Red: national prices, Blue: international prices.

Source: De Ita, SNIM and USD; De Ita, A. Fourteen Years of NAFTA and

the Tortilla Crisis. Americas Program. 2007.

These dramatic price increases ranged between 42% and 67% and were part of a larger increase of

738% since 1994. (de Ita, 2007). Tortilla price hikes wreaked havoc on the purchasing power of

Mexican wages when the price of corn jumped from 138.1 USD per ton in April 2006 to 321.1 USD

per ton in February 2007. Today, when the Mexican minimum wage is approximately 4.60 USD per

day and the average Mexican eats an estimated 10 tortillas a day, single earning families are forced to

spend as much as one third of their income on tortillas (Malkin, 2007). These price increases are the

result of three specific actions: the privatization and modernization of Mexico's agricultural sector,

the implementation of neoliberal policies and trade liberalizations, and the global demand for

biofuels. It is the manifestation of these forces which caused the price of the tortilla in early 2007 to

suddenly skyrocket in a situation known as the Tortilla Crisis (Navarro, 2007; de Ita, 2007; Malkin,

2007; Henriques and Patel, 2004).

The Tortilla Crisis was first and foremost a crisis of entitlement relations. As such, the corn

price rises in Mexico were not the result of lower production. In fact, the 2006-07 harvest ended in a

record outflow of 21.9 million tons (de Ita, 2007). In this same time period approximately 7.3

million tons of edible yellow corn and 254,000 tons of industrial white corn were imported, a record

inflow into the market. (de Ita, 2007).

While the Tortilla Crisis is the result of numerous processes including the reform of the

Mexican agriculture sector, international demand for biofuels and unregulated market prices, the

crisis clearly illustrates the vulnerablity of Mexican communities access to food.

Civic Protests and the Impact of the Crisis on the Population

It is in the opinion of many Mexicans that the tortilla crisis is about more than just tortillas. Personal accounts recorded by Malkin (2007) express dissatisfaction with government policy: "When they [the government] get involved in something as elemental as tortillas, well that's just irresponsible," and, "the government always takes advantage of the poor. First it was tortillas, but we're not stupid; if tortillas go up, everything else does too" (Malkin, 2007, p. 6). There was a general consensus within Mexican communities that their diminished access to corn tortillas was only one aspect of a larger entitlement crisis occurring. So the question remains: who is in charge of what?

Growing frustration over this issue has spurred much public protest throughout the nation. One such instance erupted in Mexico City on January 31, 2007. Peabody (2008) reports that 70,000 campesinos, consumers, trade unionists and corn security activists marched to protect against the national government's continued application of a "neoliberal model that, after a quarter of a century, has shown inefficiency and inequality" towards the needs of the small-scale tortilla producer and consumer (Malkin, 2007, p. 6). Protesters "took to the streets, some with banners reading 'no queremos PAN, queremos tortillas' in a play on the word 'pan' that rejected both the white bread that some households had been forced to switch to as well as President Calderon's PAN political party" (Peabody, 2008, p. 1). In addition, Via Campesina, an international development organization in 43 countries representing thousands of Mayan farmers, championed the cause of the protestors. Via Campesina was the largest contingent of outraged community members in the January 31, 2007 marches. (Carlsen, 2004).

Market Controls

Public protest to the tortilla crisis resulted in investigations of transnational companies, and their role in the importation of corn, its distribution and accusations of speculative stock hoarding. Market reforms and changes in trade structure were major contributors to the tortilla price hike, but so were the actions of large-scale corn producers and tortilla processing companies. (de Ita, 2007). As previously indicated by Sen (1981), it is necessary to get out of the traditional way of thinking exclusively about market supply and look instead into who is in control of what. Who determines how food is distributed within Mexico?

In Mexico tortillas are produced by two different methods; the traditional nixtamal process and the cornmeal process. Tortillas produced with the nixtamal process, are generally produced in locally owned small-scale mills and factories. By 2003, nixtamal tortilla production made up 51% of the market and has continued to have significant cultural and social importance. Tortillas made from cornmeal provided the remaining 49% of the Mexican market. (de Ita, 2007). With the privatization of CONASUPO, the Mexican government transformed centuries of tortilla production and shifted the market from local producers towards larger processing monopolies. In 2003, 49% of tortilla production was controlled by three major corn distribution companies within Mexico: Cargill, Maiz Industrializado S.A., and Grupo Maseca S.A. (otherwise known as Grupo Gruma). Navarro (2007) suggests that the Maseca tortilla brand is possibly the world's largest tortilla maker, controlling as much as 70% of the Mexican market. While Cargill, Navarro (2007) maintains, is the second largest private company in the world and has 140 years of experience buying, processing and distributing staple crops. According to Navarro (2007), companies like Maseca, Cargill and Maiz Industrializado are the primary contributors to the increase in tortilla prices. In the Spring and Summer of 2007, these three companies purchased and stored 600,000 tons of corn in Sinaloa Mexico, a state known for its high levels of corn production. These industry giants purchased the Sinaloa corn for 1,650 pesos (160 USD) a ton. Just a few months later they turned around and sold this same corn at a rate

of 3,500 pesos (320 USD) a ton (Navarro, 2007). With the recent decision by the Mexican

government to lift import quotas to lower the price, Cargill is now positioned to greatly benefit as

the primary grain importer in Mexico. According to Lorenzo Mejia, president of the National

Industrial Union of Mills and Tortilla Factories, 'The mills cannot import and will have to seek the

services of Cargill'." (Navarro, 2007, p. 3).

Large monopolies like Cargil, Maiz Industrializado, and Maseca gained the market control

they enjoy now as a result of neoliberal policies and market reforms implemented with NAFTA and

instigated during the administration of Salinas de Gortari (1988-1994). The role of these companies

in the 2007 Mexican Tortilla Crisis cannot be denied. However, it is not the dominating factor. The

major contributor to the tortilla price increases was the change in market structure due to

commodity liberalization and the demand of biofuels by nations such as the United States.

Calderón Response

The tortilla crisis came at a particularly unfortunate time for President Felipe Calderón as he

had only been in office for three weeks prior to the January 31, 2007 tortilla protests. Previously

Calderón had been a campaigner for free trade and neoliberal policies, but, in response to the

protests, he abandoned these principles. "'We will not tolerate speculators and monopolists,'

Calderón said. 'We are going to apply the law firmly and punish anyone who tries to take advantage

of the needs of people.'" (McKinley, 2007, p. 1). To support his new political stance, Calderón

sought agreements with several large companies to cap or freeze tortilla and corn flour prices. Large

companies like Cargill and Grupo Maseca (the most progressive and open to cooperation with

Present Calderón) agreed to stabilize tortilla flour prices at 21 cents a pound and sell tortillas at 35

cents a pound (which is less than half of the market rate at the time). Wal-Mart[6] and other large

retailers have promised to freeze, or keep, their tortilla price at 27 cents a pound. (McKinley, 2007).

Small-scale private and government owned tortilla businesses also committed to stabilize their prices

at 14 cents a pound (which is less than a quarter of the market rate at that time) (McKinley, 2007).

President Calderón's attempts at market stabilization were largely unsuccessful. Cargill

officials apparently referred to the promises made to Calderón as "a gentleman's agreement" (Roig-

Franzia, 2007). Cargill was, however, one of the few tortilla producers who signed the pact.

Irrespective of promises made, none of these market actors honored the price caps and Calderón

was forced to seek alternative solutions. In his next attempt to stabilize market prices Calderón

increased corn imports from the United States. Calderón imported more than 650,000 tons of corn

in an attempt to lower costs. Montagne (2007) reports that it was the intention of the Mexican

government to import cheap corn from anywhere in order to alleviate the Tortilla Crisis.

Conclusion

The Mexican Tortilla Crisis is fundamentally a political entitlement crisis involving control of

the corn industry rather than the simple outcome supply and demand (Sen, 1981; Hidler, 2007;

Henriques and Patel, 2004; Mitchell, 2008; Navarro, 2007). The crisis is the result of three specific

actions: the privatization and modernization of Mexico's agricultural sector, the implementation of

neoliberal policies and trade liberalization, and the global demand for biofuels. The manifestation of

these forces have eroded Mexican's entitlement to corn and resulted in the Tortilla Crisis.

The tortilla crisis is the result of a combination of domestic and international factors that

threaten entitlement relations in Mexico. The economist Amartya Sen has identified entitlement

relations as ownership situations ranging from simple trade entitlements to complex political

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[6] Wal-Mart is Mexico's largest private employer.

entitlement situations. Entitlement relations are key to understanding the complexities of the Mexican people's access to corn, their staple food.

The Mexican government gave campesinos political entitlement to land through the implementation of Article 27 of the 1917 Constitution. However ejidatarios did not have legal ownership to that land and were particularly susceptible to the rapid privatization and market reforms implemented during the late 1980s and early 1990s. The only legitimate entitlement over food campesinos maintained was ownership of the commodities produced on ejido farm land. Unfortunately, even this entitlement became threatened as Mexico increased its participation in the international marketplace through the implementation of free trade agreements such as NAFTA. Under NAFTA, Mexico increased corn imports and campesinos could not compete with highly subsidized US corn. Rapid increases in corn prices, exacerbated by the worldwide demand for biofuels, increasingly threaten campesinos' entitlement to corn. Global demand for corn has soared, the Mexican government has dramatically increased corn imports, and the international price for corn has skyrocketed to record numbers making it increasingly difficult for the Mexican population to afford to eat. The resulting Tortilla Crisis in 2007 was therefore the result of years of threatened entitlement relations between Mexicans and their cultural and dietary staple. It is the combination of market reforms, neoliberal policies, trade liberalization and the demand for biofuels which caused the tortilla crisis. In conclusion, these forces led to a severe threat to Mexico's food security. Any of these on its own probably would not have led to a crisis.

References

Appendini, K. And Liverman, D. (1994). Agricultural Policy, Climate Change and Food Security in Mexico. Food Policy, Vol. 19 No. 2 153.

Barry, T. (1995). Zapata's Revenge: Free Trade and the Farm Crisis in Mexico. Interhemispheric Resource Center. Massachusetts: South End Press.

Brown, J. (2004). Ejidos and Comunidades in Oaxaca, Mexico: Impact of the 1992 Reforms. Rural Development Institute Reports on Foreign Aid and Development, #120.

Carlsen, L. (2004). The Movement to Defend Traditional Maize. Americas Program. Interhemispheric Resource Center. Retrieved August 11, 2008.

Chakrabortty, A. (2008). Secret report: biofuel caused food crisis; Internal World Bank study delivers blow to plant energy drive. The Guardian, July 4, 2008.

De Ita, A. (2007). Fourteen Years of NAFTA and the Tortilla Crisis. Americas Program. Interhemispheric Resource Center, 2007. Retrieved May 3, 2008, from http://americas.irc-online.org/am/4879#_edn18.

FAO (1996), Rome Declaration on World Food security and World Food Summit Plan of Action, World Food Summit, 12-17 November 1996, Rome, Italy.

Fitting, E. (2006). Importing Corn, Exporting Labor: The Neoliberal Corn Regime, GMOs, and the Erosion of Mexican biodiversity. Agriculture and Human Values 23: 15-26.

Henriques, G. and Patel, R. (2004). "NAFTA, Corn, and Mexico's Agricultural Trade Liberalization". Americas Program. Interhemispheric Resource Center. Retrieved Sept. 13, 2008.

Hider, J. (2007). Tortilla Crisis Hits the Poor as Clean Fuel Drives up Corn Price. The Times (London), Overseas News; Pg. 50. Feb. 3, 2007.

Holt-Gimenez, E. & Peabody, L. (2008). From Food rebellions to Food Sovereignty: Urgent call to fix a broken food system. Institute for Food and Development Policy/Food First. Retrieved May 3, 2008, from http://www.foodfirst.org/en/node/2120.

Malkin, E. (2007). Thousands in Mexico City Protest Rising Food Prices. The New York Times, Section A; Column 1; Foreign Desk; Pg. 6. Feb. 1, 2007.

McKinley, J. Jr. (2007). Cost of Corn Soars, Forcing Mexico to Set Price Limits. The New York Times, Section A; Column 1; Foreign Desk; Pg. 12. Jan 19, 2007.

Mitchell, D. (Prepared by) (2008). A Note on Rising Food Prices. World Bank Report. April 8, 2008.

Montagne, R. (2007). Mexico Grumbles over Rise in Tortilla Prices. National Public Radio (NPR), Morning Edition 10:00 AM EST, Jan. 18, 2007.

Navarro Hernandez, L. (2007). Hungry for Justice: How the World Food System Fails the Poor (#4) The New Tortilla War. Americas Program, Center for International Policy. May 7 2007.

Oxfam International. (2003). Dumping without Borders: How US Agricultural Policies are Destroying the Livelihoods of Mexican Corn Farmers. Briefing Paper #50. http://www.oxfamamerica.org/newsandpublications/publications/briefing_papers/art5912.html/ OA-Dumping_Without_Borders.pdf

Peabody, L. (2008). Rising Food Prices, Rising Food Protests. Institute for Food and Development Policy/Food First. Retrieved May 3, 2008, from http://www.foodfirst.org/en/node/2086.

Roig-Franzia, M. (2007). A Culinary and Cultural Staple in Crisis; Mexico Grapples with Soaring Prices for Corn. The Washington Post. Jan, 2007.

Sen, A. (1981). Poverty and Famines: an Essay on Entitlement and Deprivation. Oxford University Press.

Skidmore, T. & Smith, P. (2004). Modern Latin America 4th Ed. "Mexico". Oxford University Press. p. 282-295.

Targowski, A. & Korth, C. (2003). "China or NAFTA: the world's largest market in the 21st

century?". Advances in Competitiveness Research.

http://www.entrepreneur.com/tradejournals/article/110733612.html

Nonstandard PL Embeddings in Codimension Two

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Abstract

This paper will explore the following question: If K is a compact k-polyhedron and M is a PL m-manifold, under which cases will the embedded polyhedra have regular neighborhoods which are not homeomorphic?

An important topological question, raised by W.S. Massey in 1959, asks whether the normal vector bundle of a compact, orientable, differentiable, k-manifold is determined by the embedding, or is it intrinsically determined by the manifold itself [Mas59].

Definition. [Rol76] An M-MANIFOLD M is a metric space in which each point $x \in M$ has a neighborhood homeomorphic to $\mathbb{R}^n$ or $\mathbb{R}^n_+$. Those points which have neighborhoods homeomorphic to $\mathbb{R}^n$ comprise the INTERIOR of M (denoted $\mathring{M}$, while the points with neighborhoods homeomorphic to $\mathbb{R}^n_+$ comprise the BOUNDARY of M (denoted ∂M).

Definition. [Kaw96] A SIMPLICIAL COMPLEX is a set K of simplices in $\mathbb{R}^n$ which satisfies the following conditions:

1. For each pair $A_1, A_2 \in K$, the intersection $A_1 \cap A_2$ is a face of A_1 and of A_2 (unless it is $\emptyset$).

2. All faces of each $A \in K$ are contained in K.

3. For each $A \in K$, there are finitely many elements of K meeting A.

The union of all simplices in K is called the POLYHEDRON of K (denoted $|K|$).

Definition. [Rol76] A manifold pair $K^k \subset M^m$ is LOCALLY FLAT at $x \in K$ if there exists a closed neighborhood N of x in M such that $(N, K \cap N)$ is homeomorphic with the standard ball pair (B^m, B^k).

Throughout this paper, we will be working in the non-locally-flat PL category, thus each space will be assumed to be a simplicial complex and each map will be assumed to be piecewise-linear, that is all maps send simplexes linearly onto simplexes (after some subdivision), but we will allow embeddings which are not locally flat. For the definition of a regular neighborhood, see [RS72]. Since we are dealing with compact polyhedra embedded in PL manifolds, then the following criteria will be used:

Proposition 1 [RS72, p.34]. *Suppose $K \subset M$ is a compact polyhedron in the manifold M. A regular neighborhood N of K in M is ca compact manifold with boundary. If $K \subset \mathring{M}$ then $\partial N = |\dot{N}|$, where $\dot{N}$ denotes the frontier of N in M.*

Theorem 1 (Collapsing criterion for regular neighborhoods)[RS72]. *Let N be a neighborhood of K in $\mathring{M}$. Then N is regular if and only if*

  (i) N is a compact manifold with boundary,

  (ii) N collapses to K.

The Massey problem later motivated the following question:[CRS07]

  Find all pairs (m, k) such that if K is a compact k-polyhedron and M a PL m-manifold then

$$R_M(fK) \cong R_M(gK) \qquad (1)$$

  for each two homotopic PL embeddings $f, g : K \to M$.

In the case of $M = S^m$, [CRS07] produced the following results:

Theorem 2 [CRS07]. *For $k \geq 2$ and given embedding $S^k \subset S^{k+2}$ set $N = R_{S^{k+2}}(S^k)$. Then $G = \pi_1(S^{k+1} - S^{k-1})$ maps into $\pi_1(\partial N)$ in each of the following cases:*

2

(a) the embedding $S^k \subset S^{k+2}$ is the suspension over a locally flat PL knot $S^{k-1} \subset S^{k+1}$.

(b) $k \geq 3$ and the embedding $S^k \subset S^{k+2}$ has an isolated non-locally flat point with the singularity $S^{k-1} \subset S^{k+1}$.

Theorem 3 [CRS07]. $R_{S^{k+2}}(S^k)$ *is not homeomorphic to* $S^k \times D^2$ *for any* $k \geq 2$ *and*

(a) *any PL sphere* $S^k \subset S^{k+2}$ *which is the suspension over a locally flat PL knot* $S^{k-1} \subset S^{k+1}$ *such that* $G = \pi_1(S^{k+1} - S^{k-1}) \not\cong \mathbb{Z}$; *or*

(b) *any PL sphere* $S^k \subset S^{k+2}$ *having an isolated non-locally flat point with the singularity* $S^{k-1} \subset S^{k+1}$ *such that* $G = \pi_1(S^{k+1} - S^{k-1}) \not\cong \mathbb{Z}$.

Proof. Let $S^k \subset S^{k+2}$ be a suspension over a locally-flat PL knot $K = S^{k-1} \subset S^{k+1}$ such that $G = \pi_1(S^{k+1} - S^{k-1}) \not\cong \mathbb{Z}$, and let $N = R_{S^{k+2}}(S^k)$. Suppose, by contradiction, $N \cong S^k \times D^2$. Since $\pi_1(S^{k+2} - \Sigma K)$ is isomorphic to $\pi_1(S^{k+1} - K)$ [Rol76, p.85], then by Theorem 1.a, there exists a monomorphism
$$h : \pi_1(S^{k+1} - K) \to \partial N.$$
Since $\pi_1(\partial N) \cong \mathbb{Z}$, then $\pi_1(S^{k+1} - K)$ is abelian. But the only knot with an abelian knot group is the trivial knot , so K is trivial, a contradiction. $\square$

In [CRS07], the following conjecture was made:

Conjecture 1. *For the pair* (m, k), *where K is a compact k polyhedron and M is a PL m-manifold, there exist homotopic PL embeddings f and g then* $R_M(fK) \not\cong R_M(gK)$ *whenever* $M = S^{2k}$ *and* $K = \Sigma(S^{k-1} \sqcup S^{k-1})$.

Specifically, they conjectured that the proof would follow if we let f and g be the suspensions of the trivial link and the Hopf link. Unfortunately, although the fundamental group of a knot complement is isomorphic to that of its suspension, the same does not hold for links [Rol76].

Definition. [Sti93] If M_1 and M_2 are $n-$manifolds, then the CONNECTED SUM $M_1 \# M_2$ is obtained by removing an open $n-$ball B_i from each manifold and then identifying $(M_1 - B_1)$ and $(M_2 - B_2)$ along their boundary $(n-1)$-spheres.

One possible route to a proof of the conjecture came through the observation that the trefoil link can be expressed as the connected sum of the components of the Hopf link, whereas any connected sum of the components of the trivial link will yield only the trivial knot. However, the connected sum is not a well-defined operation. In fact, it is also possible to obtain the unknot by connecting the components of the Hopf link, so the aforementioned surgery may instead lead to a counterexample to the above conjecture, rather than a proof.

References

[Ada94] C. C. Adams. *The Knot Book: An Elementary Introduction to the Mathematical Theory of Knots*. W. H. Freeman, New York, 1994.

[Arm83] M. Armstrong. *Basic Topology*. Springer-Verlag, 1983.

[Bur01] Marcia Lynn Burdon. *Embedded 2-polyhedra whose regular neighborhoods have sphere boundary*. PhD thesis, Portland State University, 2001.

[Cas65] B.G. Casler. An Imbedding Theorem for Connected 3-Manifolds with Boundary. *Proceedings of the American Mathematical Society*, 16(4):559–566, 1965.

[Coh69] Marshall M. Cohen. A general theory of relative regular neighborhoods. *Transactions of the American Mathematical Society*, 136:189–229, 1969.

[CRS07] M. Cencelj, D. Repovš, and A. Skopenkov. Codimension Two PL Embeddings of Spheres with Nonstandard Regular Neighborhoods. *Chinese Annals of Mathematics*, 28(5):603–608, October 2007.

[Kaw96] Akao Kawauchi. *A Survey of Knot Theory*. Birkhäuser, 1996.

[Mas59] W. S. Massey. On the normal bundle of a sphere imbedded in euclidean space. *Proceedings of the American Mathematical Society*, 10(6):959–964, 1959.

[Rol76] Dale Rolfsen. *Knots and Links*. Publish or Perish, Wilmington, DE, 1976.

[RS72] C.P. Rourke and B.J. Sanderson. *Inroduction to Piecewise-Linear Topology*. Springer-Verlag, Berlin, 1972.

[Sti93]   John C. Stillwell. *Classical Topology and Combinatorial Group Theory*, volume 72 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 2nd edition, 1993.

An Bó Bheannaithe:
Cattle Symbolism in Traditional Irish Folklore, Myth, and Archaeology

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1. Introduction

This paper explores the role cattle played in Iron Age Irish society, in their sociopolitical and economic systems, as a means of subsistence, and finally as a symbol within their belief system. Religious traditions play an integral role in any society and have a profound and systemic effect on many other aspects of culture, and should therefore be of great interest to archaeologists. However, belief systems might not be well-represented by material culture. In order to potentially understand the relationship between Iron Age Irish economy and religion, in this case as it pertains to cattle, it is necessary to make use of evidence from a variety of disciplines: Classical texts referencing Celtic culture, early historical Irish law tracts and mythologies, and archaeological evidence from known pre-Christian ritual sites. By comparing the evidence from each field, I illustrate how nearly every aspect of life in Iron Age Ireland was dependent on cattle and, as a result, cattle became a symbol of the entire society's well-being.

1.1 Sources

No single field of evidence is sufficient to inform our interpretations of the Iron Age Irish cosmology. Each has its own strengths and drawbacks and through a comparative examination of these sources, we can begin to form an impression of the nature of Irish belief in the Iron Age.

1.1.1 Classical Texts

The first of these sources comes from the multitude of contemporaneous Classical writings from the Greek and Rome neighbors of the Celtic world. Though little is written of the Irish themselves, there is a great deal of information that can be gleaned from these texts on the related Celtic peoples of the Continent and Britain. These offer the only true first-hand, albeit outsider's, reports available pertaining to the Celts, as they were, for the most part a pre-literate society. Unfortunately, an equal amount is based on rumors and hear-say as well, especially when directly concerning the Irish. Also, one has to take into account the inherently biased point of view, since the Romans and Greeks considered most everyone beyond the Mediterranean as barbarians and the reports are often highly exaggerated. However, if we take into account the biases, propaganda, and simple misinterpretations that certainly occurred, the Classical texts still offer the only contemporaneous records on the Celts.

1.1.2 Irish Texts

After Christianity spread to Ireland in the 5th and 6th centuries AD, the Irish established their own highly prolific literary tradition. For my purposes, I'll examine two categories of Early Historical Irish texts: the so-called Brehon Laws and the pseudo-historical mythologies. The law texts are some of the earliest writings to emerge out of

Ireland. They claim, at least, to be primarily based on the oral law tradition practiced before the coming of Christianity. Unlike the mythologies, there is only a relatively small gap of time between the pagan Iron Age and the writings of the first law tracts in the Christian era. Also, though they were Christian by this time, they are the first writings we have directly from the Irish themselves. The real problem arises when we remember that these tracts were written down by Irish clerics and Christian scholars, who had a vested interest in ridding Ireland of pagan practices. Anything that was deemed inherently un-Christian was either changed or completely disregarded. Also, a great number of the texts were destroyed for political reasons, especially in the Elizabethan era, particularly the texts relating to the common people, so there is a large gap in the original body of knowledge that is lost to time.

1.1.3 Myths and Folklore

The mythologies are fraught with even more problems than the law texts. Most were written 300 to 700 years after the Christian conversion, long after the last of the pagans were gone. The stories, like the law texts, were originally kept in an oral tradition by the religious caste, the druids, who were notorious for keeping such knowledge secret (Caesar 1998: 141). Even a cursory comparison of a few myths illustrates the convoluted and disorganized nature of the tales, full of contradictions (see Appendix 1). Though the sheer mass of information demonstrates the Irish clerics' interest in preserving these stories, they are undoubtedly filled with inaccuracies. Also, there were likely as many different versions of any one character or myth as there were tribes in Iron Age Ireland, which some estimate to fall between 100 to 150 local divisions (or *tuatha*) (Richter 1995: 18). Though other evidence does support that the basis of the belief system was extremely similar in most of the Celtic world, there would certainly have been local variation. Again, we have to remember that they were written by Christian monks and clerics who were concerned with preserving the Irish culture and history, but not with encouraging pagan myths. Many, even most, of the stories are obviously manipulated to appear as pseudo-historical accounts of Ireland and the characters, certainly deities once, are often presented more as historical heroes and kings, their formerly divine status severely downplayed. On the other hand, though the details of the myths may be scattered and disorganized, the basic themes within them are extremely consistent. If we concern ourselves only with understanding the basic tenets of Iron Age belief, and use comparative information gleaned from Classical texts on the related groups in Britain and Gaul, it is possible to strip away the finer points and see certain overriding ideals embedded within the myths.

1.1.4 Archaeological Evidence

The archaeological record is the one source of relatively unbiased information, and it can provide us with the physical evidence related to ritual activity. Of course, artifacts are silent, and it is extremely difficult to interpret how activities at ritual sites fit into a belief system that we hardly understand. Compounding the issue is an almost total lack of evidence from occupational sites in Ireland, especially from the Iron Age, with which we could compare to the ceremonial sites. However, due to a number of major excavations in the last few decades, we have more information on the nature of these ceremonial activities and ritual sites than in all the time before combined. We finally have an opportunity to at least form some idea of what actually went on at these imposing sites.

1.2 Celtic Origins

Before examining the Iron Age Irish Celts specifically, it is helpful to understand their background and origins in a larger European context. This also helps to illustrate why we can examine information pertaining to British and Continental Celts when studying Ireland.

The first groups to emerge in Europe that could be tentatively called 'Celtic' (which is technically a linguistic term), originated from the merging of the Tumulus and Urnfield cultures around 1000 BC in the Danube Basin (Ó hÓgáin 2002: 2). They formed the cultural group referred to as the Hallstatt people, who are generally associated with the Late Bronze and Early Iron Age. The first major expansion period occurred between the 8th and 7th centuries BC. It is believed that a form of proto-Celtic language was already spoken at this point. The word 'Celt' is rooted in the Indo-European root *kel*, meaning 'to strike,' and according to Classical sources, it was a term at least some Celtic tribe used for themselves (Ó hÓgáin 2002: 2). This alone gives us some indication of a warrior-based society living just beyond the boundaries of the 'civilized' Mediterranean.

For all intents and purposes, the Hallstatt essentially gave birth to the Iron Age La Téne culture around the 6th century BC, whereupon another extensive expansion across Europe occurred (Fig. 1). A thorough discussion of the La Téne culture could easily fill several books (and it has numerous times), but here it sufficient to say that they are distinguished best by their highly skilled iron-working technology and distinctive insular art forms, parallel examples of which bond all the La Téne groups together (Ó hÓgáin 2002: 6).

Fig. 1: Spread of La Téne Cultural Influence (Raftery 1994)

Both the Hallstatt and La Téne groups immigrated into Ireland at some point during these expansions, but it is still unclear exactly when this occurred. The terms Bronze and

Iron Age are problematic as chronological terms to begin with, but they are especially troublesome when applied to Ireland. The earliest iron objects in Ireland date to the 7th century BC, but the next set dates to between the 3rd and 2nd centuries BC, with little material evidence of any sort found in between. There is fairly extensive evidence of Hallstatt C origin (usually considered Early Iron Age), especially in terms of weaponry and burial practices, enough to believe that the Hallstatt Celts were present in Ireland as opposed to simply representing a foreign influence on the indigenous population, but most of the artifacts are bronze, not iron (Cooney 1991: 33-35). Unlike those on the Continent, the Irish Celts seem to have preferred bronze over iron far longer than most (though both were used to an extent), despite apparently having the knowledge to utilize the more advanced iron technology and possessing their own sources of both materials.

The issue of continuity versus intrusion is even more complex and ambiguous when applied to the later La Téne presence. The earliest distinctively La Téne-style artifact found in Ireland thus far dates to the early 3rd century BC (Raftery 1991: 30). Some of the early examples are imports, though most of the relatively small amount found are indigenously made, but all are wholly La Téne, implying that the art form arrived after it was fully developed with some level of immigration (Raftery 1991: 29). Most of these artifacts are high-status items, so they primarily inform us of only one elite faction of the population. Material evidence pertaining to the rest of the population, that of typical lower-status settlement life, is nearly non-existent in the Irish Iron Age, though they certainly would have constituted the majority of the population. Though it is probably safe to say that most of Ireland was made of Celtic groups, there is evidence pointing towards both indigenous Hallstatt continuity and a foreign La Téne intrusion, so there may have essentially been two separate cultures living side by side, one ruling over the other.

By the earliest beginnings of the historical period around the late 5th to 6th centuries AD, Ireland was undeniably Celtic, but as discussed, when the Celts arrived, and which Celts arrived, is still ambiguous and hotly debated. What evidence does exist primarily indicates immigration from Britain, though some have suggested the Celtiberians in what is present day Spain as another origin, and it is likely that Ireland at least had fairly consistent contact with Gaul as well. For the purposes of this paper, however, we are concerned primarily with the mid to late Iron Age Celts up to the historic period, from roughly around the 3rd century BC to the 5th century AD. Whether Ireland was Celtic at this point is not much debated. In summary, it is sufficient to say that by this era Ireland was Celtic in origin and had important cultural ties to the Celts of Britain and the Continent.

From these texts, myths, and archaeological sources, I will now summarize the subsistence, sociopolitical system, known ritual activities and religious themes, followed by a close examination of the archaeological evidence at several important Iron Age sites to illustrate the importance of cattle in every aspect of Iron Age Irish life.

2. Subsistence

Interpreting the symbolic nature of cattle in Iron Age Ireland must first start with their most primary role, as a form of subsistence. As previously mentioned, there is little material evidence pertaining to domestic sites in Ireland during this period, so it is difficult to draw detailed conclusions (Raftery 1994: 112). A major gap exists in the archaeological record from the 7th to the 3rd centuries BC (though it is not entirely absent), and this period represents the transition between the Bronze and Iron Age. Most of the evidence that does exist, however, points more to continuity with little external intrusion (Cooney 1991: 33).

Thus, it is likely that the Iron Age subsistence practices closely resembled those of the Bronze Age.

      Within this earlier period, both cultivation and animal husbandry were practiced with an emphasis on cattle as the dominant food source (Raftery 1994: 21). This seems to also be the case in the Iron Age, though whether this was primarily for dairy or meat remains unclear. In the far better documented Early Christian Era, cattle were still the primary food source, and it was clearly a dairying economy (McCormick 1995: 35) and recent biochemical research in the British Isles supports that this was the case far earlier than the 5th century AD.

      This is not particularly unique to Ireland of course. There exists a long history of cattle pastoralism in Europe and both Ireland and the British Isles are especially suited for it. For successful pastoralist practices, an area requires the development of open country, grasslands or moorlands, preferably longer growing seasons, and a temperate climate with little snow, all of which apply to Ireland (Fleming 1972: 187). On top of the amicable climate, according to the pollen analyses, Ireland underwent a major woodland clearance by at least 600 BC, dominated by grassland with some evidence of arable agriculture (Weir 1994: 176).

      A heavy reliance on pastoralism seems to have been the case in most of the Celtic world. Nearly all contemporaneous Classical accounts of Britain and Gaul tell a similar story. In his *Geographia*, Strabo writing that the Britons are "well-supplied with milk" from the cattle they keep in massive circular pens (1969: 255-7). Though he says nothing of the subsistence practices in Gaul, within his lucid description of their sacrificial rituals, (which I will touch again on later), he specifically notes that cattle were often included the offerings (1969: 249). Caesar, too, makes note of the British homesteads with their "numerous cattle" and claims that most of those living in the interior of the island "do not grow corn but live on milk and meat, and wear skins (1998: 111)." In his history of the Roman Empire, written sometimes between 154 AD and 211 AD, Cassius Dio states that the Britons hold "no walls, nor cities, nor tilled fields, but living by pasturage and hunting and a few fruit trees (2004: 77:12)." The only author to discuss Ireland's means of subsistence is Tacitus in his biography of Agricola, and though he fails to mention cattle, he does write that "in soil, climate and in the character and civilization of its inhabitants it is much like Britain (1960: A24:74)" which given all other evidence, likely implies a similar reliance on cattle pastoralism.

      The Irish law texts, primarily developed in their oral form within the Iron Age, emphasize the importance of cattle at every level. A nearly countless number of laws were written to address crimes against the cattle herds, for example, theft or injury done to the animals. Interestingly, there are also laws related to harm done by the cows themselves, such as damage to property caused by a wayward animal (O'Donovan Vol. IV, 1879 III). This may indicate that there was rather sizeable number of cattle roaming through Ireland at the time, though of course any accurate guess as to how many there were would be difficult to make. As a whole, the legal scholars of Ireland seem to have been very concerned with the herds being protected and maintained properly, above all other forms of livestock or food production.

      I will address the details of the faunal reports for the ceremonial sites of Ireland further on, as this pertains more to ritual activity than to subsistence specifically. It bears mentioning, however, that of the remains found at the three excavated sites, two, Tara and Dún Ailinne, are heavily dominated by bovine remains, both at around 50% (McCormick 2002: 103, Crabtree 2007: 158) . The third site, Emain Macha, is a nit more complicated. Within two areas, cattle are the predominant species found, while at the other two areas, pigs are actually more common, with cattle running second. Even so, cattle would have provided

a greater amount of food by sheer weight alone (McCormick 1997b: 145, 2000: 37, 1997a: 119).

3. Sociopolitical System

As Iron Age Ireland was primarily a pre-literate society, most of our information concerning their sociopolitical system comes from the early law texts, often referred to as the Brehon Laws. As some of the earliest writings to emerge from Ireland, and due to their immense complexity, it is believed that they are reflective of the earlier prehistoric law as well as those of the Early Christian Era (Ginnel 1894: 26). The pseudo-historical introduction to the Senchus Mor, one of the largest collections of law tracts, states just that:

> What did not clash with the Word of God in the written law and in the New Testament, and with the consciences of the believers, was confirmed in the laws of the Brehons by Patrick and by the ecclesiastics and the chieftains of Ireland; for the law of nature has been quite right, except the faith. (O'Donovan Vol. I, 1865: 17)

The texts themselves claim to have been written in the time of St. Patrick, in the 5th century ad, and while they may actually date as late as the 7th and 8th centuries, they are still some the earliest writings available (Richter 1995: 16).

Early Irish society was formed around a heterarchy, neither a hierarchical monarchy nor a feudal system, where an individual's rank varied depending on the conditions. At the top of the heterarchy was the *flaith*, a class of nobles. Each local tribe, or *tuath*, was governed by a king (*rí*), chosen from within the *flaith* as a secular and spiritual leader of sorts. Above the tribal king was a regional king who presided over several *tuatha* and above him sat the provincial king, the highest authority (Ginnel 1894: 64-67, 96). Though only nobility were eligible to rule, the position was an elected one, chosen from a division called the *derbfine* – those within a four-generation relationship to any former king – and though such a large body of potential electorates likely caused its own conflicts, this theoretically ensured that only the most qualified individual held the position (Ginnel 1894: 67, 136).

The whole of Ireland was divided into five major provinces or *cóicedaig*: Ulaid (Ulster), Mide (Meath), Connachta (Connacht), Laigin (Leinster), and Mumu (Muster). This is also supported by the archaeological record, evidenced by the existence of five major ceremonial centers, one in each region (Newman 1998: 132). As early Ireland was entirely rural, there were no urban centers until the Viking invasions of the 9th century ad, these capitals served more as symbolic capitals and spiritual centers to the *cóicedaig* as opposed to being more actively political, as I will discuss later.

Within the *flaith*, and apart from it, existed the professional class, the most noteworthy being the *druíd*. I will discuss this group in detail further on, but for now it is sufficient to say that these individuals were the only ones with full legal rights outside of their own *tuath* and possessed the freedom to essentially come and go as they pleased, something not even the nobility had a right to (Richter 21-22). They were religious and legal scholars, the most highly educated class in the Celtic world (both Britain and Gaul had their own *druíd* as well) and in fact the word 'brehon' is an anglicization of the Irish *brithem*, the druidic legal scholars theoretically responsible for the creation of the Brehon Laws.

Outside of the nobility and professional class, most of the Irish population was composed of common people, who can be divided into three categories: freemen with property (or *céiles*), freemen without property, and slaves (Ginnel 1894: 98-99).

Unfortunately, most of the laws pertaining specifically to 'ordinary' people have been lost or destroyed and the archaeological evidence of their lives is very scarce (Raftery 1994: 112).

Comparable systems seem to have existed in Britain and the Continent, according to the Classical texts. Cassius Dio states that the Britons' "form of government is mostly democratic (2004: 77:12) and Caesar gives a remarkably similar description of the Gallic political system in the 1ˢᵗ century BC, with tribal, regional, and provincial divisions:

> In Gaul, not only every tribe, canton, and subdivision of a canton, but almost every family, is divided into rival factions. At the head of these factions are men who are regarded by their followers as having particularly great prestige. The object of this ancient custom seems to have been that all the common people should have protection against the strong … The same principle holds good in intertribal politics: all the tribes are grouped in two factions. (1998: 138-9)

The tribes themselves were essentially kinship-based, all members claiming descendency from a common ancestral family or *fine* (Ginnel 1894: 102). The king as the head of the *fine*, was seen more as a caretaker, protector, and legal representative of the *tuath*, not a despot. He had no real legislative power, nor was he responsible for enforcing or maintaining the law. His central duty was to defend the *tuath* against its enemies and to serve as a sacerdotal leader (Richter 1995: 17-18). The king was also responsible for providing cattle to his subjects and inreturn, they paid a tribute back to him in "victuals, labour, and respect (O'Donovan Vol. II 1869: 345)." This likely consisted, more literally, in new calves, meat and dairy products, and potential military service when needed. This twice-yearly tribute was meant to be used for the interests of the tribe, not the king's personal use and the local kings paid their own tributes to the kings above them (Ginnell 1894: 121, 136).

This system was part of the complex property arrangements that were both communally and individually divided (Ginnel 1894: 113-6). Though land could be individually owned in a way, it belonged first to the *tuath* as a whole and could not be sold or gifted to someone outside of the community:

> No person should grant land except such as he had purchased himself, unless by the common consent of the tribe, and *that* he leaves his share of the land *to revert* to the common possession of the tribe after him. (O'Donovan Vol. III 1873: 53)

An individual could rise, or fall, in rank and position through many avenues, but primarily through the accumulation of wealth in land or cattle (Ginnel 1894: 61). Traditional ideas of money, as in coinage, did not appear in Ireland until centuries into the historical period and as such, monetary value was defined in a number of ways: through *cumals* (literally female slaves, but usually meant to refer to the amount of gold or silver equivalent to the value of a female slave), *séts* (nearly always defined as a particular number of cattle), or in ounces of silver (Kelly 1998: 112).

Cattle were the most common form of 'currency' until the 13ᵗʰ century AD. The base unit and most valuable type of cattle was the mature milch cow and all other types were defined against that, e.g. a two-year-old heifer would be considered 1/3 of the value of a milch cow, a yearling bullock was 1/8 of that value, and so forth (Kelly 1998: 113). Individual status was ranked by an honor price, defined by a certain number of *séts*, which in turn represented a certain number of cattle (Ginnel 1894: 104). Essentially, a person's importance was calculated by how many cows their life was worth. This is especially significant since most crimes and offenses could satisfied by paying an fine, usually in cattle,

to the wronged individual or their family, including murder, where one paid the established honor price of the victim plus a 'body fine' (Ginnel 1894: 188).

As a whole, the entire sociopolitical system relied almost entirely on the cattle herds. They served as the primary basis of wealth and as such, as the basis for social rank. Most monetary transactions were dealt with in cattle, including the tributary exchanges between the king and his subjects. Even a human life was defined by how many cattle that individual was worth. If, for some reason, harm befell the cattle herds of Iron Age Ireland, the people would not only have starved, their entire sociopolitical system would have collapsed around them.

4. Ritual and Religion

It may be impossible to know precisely what the Iron Age Irish believe in a religious context, but reasonable inferences can be made through a combination of the archaeological evidence of ritual activities, Classical and insular descriptions of Celtic belief systems, and the mythologies collected and recorded by Christian monks in the early medieval era. Through these lines of evidence, I will review the "who," "what," "where," and "when" of Irish ritual activity in an attempt to uncover the "why" of such events.

Though local and regional religious variation would have persisted throughout the Celtic world, certain themes do emerge that bind these groups together. I have already discussed the general cultural connections between Ireland, Britain, and the Continent earlier on. The first grounded similarities in belief can be seen in cognate place-names, especially those referencing related deities between the various regions (Newman 1998: 131). The attributes of these deities also bear a strong resemblance to one another. The Classical reports of Celtic ritual activity often mirror activities described in the earliest Irish Christian documents and activities referenced in the mythologies, many of which seem to be reflected in the archaeological record of the Irish sacred sites. Also, it would be a mistake to assume that paganism fully ceased after the Christianization of Ireland. The early writings of Irish monks show that they were greatly concerned about the continuation of such 'heathen' practices. The archaeological record, too, supports this, especially in the persistent practice of Iron Age-style funerary customs up until the 7th or 8th centuries ᴀᴅ, which differed significantly from Christian burials (Raftery 1995: 7). As such, though many of the details of pre-Christian Irish religious belief may elude us, we do have an ample amount of information with which to work from.

4.1 The Druids

Precluding any decent discussion of Iron Age Irish religion, it is important to understand the system in which it worked and the social class, the druids, who dictated all ritual activity. These mysterious figures have so entranced popular culture that it is sometimes difficult to separate the numerous misconceptions attached to them today from what we can confidently support through archaeological and textual sources. Maringer states that there are a number of conditions that must exist for a culture to support a professional priesthood, all of which seem to have been present in Iron Age Ireland:

> …a differentiated economy with a settled way of life, including leisure for spiritual activities; the existence of a production surplus, the material foundation of rich sacrificial custom requiring special ritual members; and the existence of cult centers requiring priests or priestesses for daily worship or for conducting seasonal ceremonies. (1977: 101)

The voluminous data from all fields of evidence, strongly indicate that the Celts of Ireland, Britain, and the Continent had a special religious caste. The Classical authors were especially interested in the Celtic druids and nearly all make mention of them. Strabo states that there were three classes with the Gallic religious caste: the Bards, Vates, and Druids, all with "exceptional honor" and the "most just of men" who arbitrated disputes on every level, could single-handedly stop a battle, and led all religious ceremony (1969: 245). Caesar does not differentiate between the various sorts of Gallic druids, but his description is much the same. They "officiate at the worship of the gods, regulate pubic and private sacrifices, and give ruling on all religious questions [and] act as judges in practically all disputes (1998: 140)." He further states that druids were held in great honor by their people who sent their children to them for instruction, that they answered to "one head" above the tribal level, and that though they were highly educated and literate, they were forbidden to write down their religious teachings. Interestingly, Caesar is told that the druidic order began in Britain and that many would travel to the island for decades of religious training (1998: 141). Whether or not the former is true, the latter illustrates the cultural cohesion between the religious communities of far-reaching Celtic areas.

Within the Irish texts are almost identical classes to what Strabo described: the *bard* or *fili*, *fáidh*, and *druí* (Ó hÓgáin 1999: 72). Nearly all early Irish texts mention the druids. In the same way as shamans and priests cross-culturally, they are said to act as mediators between this world and the Otherworld and are repeatedly associated with prophecy and sacrifice (Ó hÓgáin 1999: 75, 85). In Macthéni's pseudo-historical biography of St. Patrick, he says the kings "had men possessing knowledge and magi and diviners and enchanters and finders of every evil art (2006: 1:X:7-8)." The law tracts claim to be co-authored by druids, in the "joint memory of two seniors, the tradition from one ear to another, the composition of poets [*fili*]," most importantly Dubhthach, who's said to have explained the laws of Ireland to Patrick so that all that "did not disagree with the word of God in the written law" would be preserved (O'Donovan Vol. III 1873:31-33). The mythologies are filled with druids in the service of kings, usually performing some act of magic or divination. In a precursor story to the great Irish epic, the *Táin Bó Cúailnge*, King Conchobor of Ulaid employs a druid named Cathub who foretells the downfall and exile of Ulaid's great warriors before the great battle with Connachta for the Donn Cúailnge, the Brown Bull of Cooley (Gantz 1981: 258-9).

The archaeological evidence also supports the existence of a priesthood as described in the texts in Ireland and abroad. The size and complex nature of massive ritual sites like Tara, Dún Ailinne, and Emain Macha indicates that a religious caste existed that exerted a tremendous amount of power over people and resources (Lynn 1992: 41). The morphological similarities between the sites support the idea that this religious community was organized above the tribal level and its members practiced the same basic religious activities (Newman 1998: 131). It is extremely likely that an organized, highly educated religious caste did exist in Iron Age Ireland.
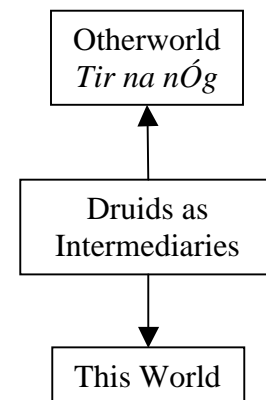
4.2 The Calendrical System

In one form or another, the traditional Irish festivals have been observed Ireland continuously from the prehistoric era to the present, though of course with countless modifications. Modern traditions at these events certainly can't be said to be the same as

those performed in pre-Christian times, but some of the associations seem to have survived in folk practices. These 'quarter days' that divide up the Irish calendar were so integral to the pastoral and agricultural practices that the Church was unable to suppress their observation (Patterson 1994: 120). There is also archaeological evidence suggesting the great antiquity of these holidays, which I discuss below.

The Irish year was divided into four seasons, each marked by a 'quarter-day' festival: Samhain (winter), Imbolc (spring), Beltaine (summer), and Lugnasad (autumn). Samhain, celebrated around November 1st, marked the end of the old year, the beginning of the new year, and was presumably the most important festival of the year (Lynn 1992: 42). The fact that the Irish thought of the New Year beginning in winter is related to a larger theme within the Celtic cosmology where winter comes before summer, night before day, and death before life. Caesar mentions a similar Gallic view of counting each day as beginning when the sun set (1998: 142). The emphasis of that time of year was on meat production, killing of the surplus cattle before the winter months began (Patterson 1994: 122).

Samhain was also believed to be the time when the boundary between the real world and the Otherworld was the most permeable (Patterson 1994: 128). Modern holidays that usurped the Samhain tradition (Halloween and All Soul's Day) still seem to echo this concept. The Irish law tracts and myths repeatedly describe feasts and festivals held at this time of year:

> Each year the Ulaid held an assembly: the three days before Samuin and the three days after Samuin and Samuin itself. They would gather at Mag Muirthemni, and during these seven days there would be nothing but meetings and games and amusements and entertainments and eating and feasting. That is why the thirds of Samuin are as they are today. (Gantz 1981: 155)

Imbolc, the first of February, was considered the first day of spring when work with the livestock and land could begin again. In fact, the name Imbolc roughly translates to 'milking,' (Ó Catháin 1995: 7). In modern folk practices, this is also considered the feast day of St. Brigid, who is very likely the euhemerization of an early female deity associated with fertility, cattle, and Imbolc festivals (Ó Catháin 1995: 17).

The beginning of summer, May 1st, began on Beltaine. This was the time just before the communities divided so that the livestock could be taken to summer pastures and it was the traditional occasion for assemblies and inaugurations (Patterson 1994: 135-6). It was strongly associated with grand bon-fires, the word itself means 'bright fire,' (Úa Cuilennáin 1913: 12) which will become a great deal more significant when I explore the Celtic sacrificial practices.

Lugnasad marked the beginning of the final season, autumn, when the community and cattle herds rejoined at the start of harvest time (Patterson 1994: 141). It is named for Lugh, the 'multi-skilled' god, who many believe was the most important deity in many, if not all, parts of Ireland. He represents one of the deities that strongly ties all parts of the Celtic world together for there are locations named after him in Ireland, Britain, and the Continent.

4.3 Ritual Activities

A number of Iron Age ritual activities have been postulated through a variety of academic fields, but for the purposes of this paper, I'll focus on two widely attested practices that involved cattle directly: sacrifice and ceremonial feasting.

4.3.1 Sacrifice

While the extent to which it was practiced is difficult to determine, sacrifice, of humans, animals, and material objects, was indisputably practiced throughout the Celtic world. Archaeological evidence, Classical writings, and early Irish texts and mythologies all provide support for this ritual activity. The Classical authors, in fact, were rather fixated on the subject and though they undoubtedly exaggerated for political reasons, their consistent and repeated descriptions of the practice suggest that it certainly wasn't an outright invention on their part.

Sacrifice has been a common part of ritual activities in many parts of the world throughout human history and the basic significance behind it is often the same. Atran summarizes the ideals behind sacrifice and some of the various practices often involved that may be relevant to the Irish Iron Age rituals:

> Religious sacrifices are not only designed to be materially costly, they also aim to be emotionally arousing. Blood, especially human blood, is optimal for sacrifice on both accounts … Such costly offering of a significant part of a particular human life was made to the gods to obtain an even fuller and more enduring life for the congregation as a whole. Blood offered at the alter was usually conceived to be drunk by the deity … In many of the world's religions, blood sacrifice has persisted in one form or another. Usually it survives as animal sacrifice, with animal blood replacing human blood … Often the animal is consumed by the congregation, at least in part. This serves to redistribute meat and affection among members of the community … In religious offerings, there is *always a nonrecuperable cost* involved both in the selection of the item offered and in the ceremony itself … In many cases, the first or best products of one's livelihood must be given to the gods … (2002: 115-116)

Strabo, who seemed to enjoy painting rather graphic depictions of 'barbarian' peoples, lists a number of ways the Gallic druids performed sacrifice, including shooting people to death with arrows, impaling them in the temples, throwing cattle and wild animals into the fray, and lighting the whole thing on fire (1969: 247-9). Caesar, at least, offers some clue as to why the Gallic sacrifices were performed:

> "…persons suffering from serious diseases, as well as those who are exposed to the perils of battle, offer, or vow to offer, human sacrifices, for the performance of which they employ Druids. They believe that the only way of saving a man's life is to propitiate the god's wrath by rendering another life in its place (1998: 141)."

It is from him that the infamous 'Wickerman' is known, which mirrors Strabo's account as well: "Some tribes have colossal images of wickerwork, the limbs of which they fill with living men; they are set on fire, and the victims are burnt to death (1998: 141)." Significant archaeological attention has been given to the possibility of the 'Wickerman' ever really existing, and it has been deemed structurally impossible, at least in exactly the way Caesar describes it, but there is strong evidence of similar practices that this idea was likely based on (Lynn 1992: 47). Caesar also mentions that after a battle "they sacrifice the captured animals and collect the rest of the spoils in one spot [and] high piles of it can be seen on consecrated ground (1998: 142)."

Pomponius Mela stated that the Gauls "used to believe that to gods the best and most pleasing sacrificial victim was a human being" (1998: 3:18:107) and Cassius Dio claims that captives in the Iceni uprising in Britain were tortured in the most grotesques manner, then impaled in sacred places as sacrifices made to Andate, a goddess of war (2004: 62:7).

The archaeological evidence does support some forms of sacrifice, albeit not usually in just a graphic manner as the Classicists. Though it is the most widely attested form of

sacrifice in the texts, it is rather difficult to identify sacrificial victims of fire. Cremation was the most common funerary practice in much of the Celtic world, especially in Ireland, and it is impossible to know how or why an individual died from cremated remains (Cooney 1991: 39). It is also nearly impossible to tell from faunal remains if an animal was ritually sacrificed before being consumed. Most forms of food preparation would have involved fire and cremating the bones could have been a likely means of disposal. With that said, it is not unreasonable to presume that faunal remains found at ritual sites, devoid of any domestic evidence, were sometimes, or even often, first offered as sacrifices before being consumed, especially when the animals were killed on site. Also, the faunal remains at Irish ritual sites are often found within a copious amount of burnt material, far beyond anything needed simply for cooking, supporting the Classical and Irish stories of massive bonfires. For example, among the extensive faunal remains recovered at Site C of Emain Macha, out of almost 1400 bones, all but 11% were burnt so thoroughly that they couldn't be identified (Murphy 2002: 19).

Beyond fire sacrifice, other forms are a great deal more easily recognized in the archaeological record. Severed heads buried at ritual locations (and occasionally bodies without heads), usually attributed to sacrifice, have been found in both Britain and Ireland. This is likely related to the so-called 'cult of the head' concept that permeated throughout the Celtic world, that the spirit of a man (or the spirit of an animal) resided in the skull (Cooney 1991: 40) and that the spirits of the victim would then guard that location (Ó hÓgáin 1999: 47). There are many burials in Ireland that may represent sacrificial victims, both human and animal (Ó hÓgáin 1999: 46). One burial uncovered in County Kildare strongly suggests, from the strained position of the skeleton, that the woman was buried alive, likely as a form of sacrifice (Raftery 1999: 199). Children are frequently found buried with adults in otherwise typical graves, but they are found in such pairs so often that some believe this indicates sacrifice as well, though whether it was of the child or the adult in uncertain (Raftery 1999: 199).

Most animal remains can just as easily be explained as simple food refuse, but a small number of horse bones have been found at all three excavated Irish ritual sites (McCormick 1997a: 120, McCormick 2006: 106, Crabtree 2002: 64). It is fairly unusual to begin with to find evidence of horseflesh being consumed at all in Ireland (and all the bones do bear butchery marks), as they obviously would have been far more valuable for purposes other than food. In fact, there are a number of Irish stories that place a *géis* (taboo) on the consumption of horseflesh. If horses were used as food, it would likely be only under the most auspicious of occasions. One medieval writer, Giraldus Cambrensis, claimed that at the inauguration of an Ulster king, a white mare was sacrificed, dismembered, and made into a broth in which the new king bathed and he and all the people partook of (1863: 138). While this does not necessarily mean that all the animals within the same context were ritually sacrificed first, it does point towards such a possibility.

As previously mentioned, cattle bones represent the majority of the faunal remains found at the excavated Iron Age Irish ritual sites. It is not unreasonable to assume that some of these remains are evidence of sacrifice and not merely food refuse (though even as food refuse, they likely represent ritual activity as I will describe in the next section). There are a number of cases where animal bones in Iron Age Celtic Britain were found buried beneath ramparts, thus likely sacrificed before constructing a home or fortification, or interred with human burials, indicating that the animals were sacrificed as part of the funerary ritual (Ó hÓgáin 1999: 46). There is also archaeological evidence of cattle sacrifice within the preceding Irish Bronze Age as well, such as at King's Stable, a small artificial ritual pond

within the Navan Fort (Emain Macha) complex, where a large number of cattle bones were deposited, along with several other species, a human skull, and a number of metal objects (Raftery 1994: 24, McCormick 1994: 182).

4.3.2 Ceremonial Feasting

Ceremonial feasting is not only far easier to support through archaeological means, it is one ritual activity that is entirely accepted as having taken place in Iron Age Ireland by nearly every field. The "why" of it, however, is another matter. Feasts, especially within the context of a ritual site, cannot be assumed to be nothing more than a particularly grand meal. It is a ceremonial act by its very nature. Dietler defines a feast as:

> …a form of public ritual activity centered around the communal consumption of food and drink … feasts provide an arena for both the highly condensed symbolic representation and active manipulation of social relations … The ritual symbolism of feasts is constituted through a complex semiotic relationship to daily consumption patterns, and both form part of a common semiotic field. To adapt a concept from linguistic analysis, feasts may be viewed as the 'marked' form to the 'unmarked' meal. (2001: 67, 69-70)

Support for this activity can be found in the Irish mythologies, the law tracts, and there is extensive archaeological evidence. Only one Classical author, Cassius Dio, makes note of ceremonial feasting in his account of the Iceni uprising in Britain, though he does point out that it is in honor of a deity: "All this they did to the accompaniment of sacrifices, banquets, and exhibitions of insolence in all of their sacred places, but chiefly in the grove of Andate, that being the name of their personification of Victory, to whom they paid the most excessive reverence (2004: 62:7)."

The Senchus Mor gives its own definitions of appropriate types of feasts: "Question: How many banquets are there? Answer, – Three; a godly banquet, a human banquet, a demon banquet (O'Donovan Vol. III 1873: 19)." This particular part of the Brehon Laws was probably quite influenced by Christianity. The 'godly banquets' include all those related to Church activities and Christian holidays. The 'human banquets' are described as "the banquet of each one's feasting house to his chief according to his (*the chief's*) due, to which his (*the tenant's*) deserts entitle him," obviously feasts for political reasons. The glosses it the text describe one subclass of a 'human banquet' involves the "feeding of a collection, i.e. at the making of 'cain'-law and 'cairde'-law, i.e. a cow *from* every farm (O'Donovan Vol. III 1873: 21)." This reflects that reciprocal relationship within the heterarchy discussed earlier, whereby each lower king had to give tribute to the king above him, often through a feast.

The 'demon banquets' are said to feast in honor of those who do not deserve one, most of which are references to types of pagan or druidic individuals, of which I will list a few from the text. The satirist (*cáintib*) in most myths, is a poet-druid (*fili*) who has the power to physically mar an individual (usually a king) through the power of his words. The begging poets or jesters (*oblairib*), is translated in a few ways, but was also traditionally a druidic profession. Heathens or pagans (*geintib*) is obviously just what it sounds like, and does imply that there were still pagan practitioners around at the time. The 'sons of death' (*macaib báis*) are the name given to those accompanied by druids. The last type given, *druthaib*, which translates to buffoon, is thought to have likely been a misprint of the word *drúidib*, or druid (O'Donovan Vol. III1873: 25, McCone 1990: 221-222). That the early Irish clerics went to such great lengths to condemn pagan feasts suggests that the practice was still alive and thus must have been incredibly important to those still practicing pre-Christian traditions.

The Irish myths are filled with stories of great feasts, usually set within the known ritual sites on either Beltaine or Samhain. The *dinshenchas*, collections of early poetic writing specifically in reference to important locations in Ireland, attribute a number of such events at the major sites:

> The feast round the mighty Feast of Tara,
> the fairs, round the Fair of Emain;
> annals there, this is true;
> every division into which Erin has been divided (Gwynn III: 21)

Many myths tell of the gods holding great feast on the Hill of Tara. In "Midhir and Etain," the feast takes place on Samhain and lasts "from the fortnight before Samhain and the fortnight after it (Gantz 1981: 90)" and though it doesn't say when the event took place, the story of Lugh's arrival is heralded by a grand feast at Tara as well. Even when feasting is not specifically mentioned, in nearly every myth, there is at one point or another, a great assembly or fair hosted by a king, which one can easily assume involved feasting.

One particular ritual described in the early texts, the *tarbfheis*, involved both the sacrifice and feast of a bull, before the inauguration of a king. A bull was sacrificed, and after eating his fill of meat, a druid would then sleep while his colleagues performed incantations around him so that he might dream of the rightful new king (MacKillop 1998: 65). This is also reminiscent of the bull-sacrifice scene on the Gundestrup cauldron (Fig. 2) found on the Continent and bulls as a symbol of kingship are extremely common throughout the Indo-European world.

Fig. 2: Bull-Sacrifice Plate of the Gundestrup Cauldron (Olmstead 1979)

Archaeological evidence at all three excavated sites, Tara, Dún Ailinne, and Emain Macha, indicate ritual feasting within the Iron Age levels. Based primarily on the structural elements and lack of distinctive domestic artifacts, these sites have been repeatedly shown to be ceremonial in nature rather than domestic sites, and extensive faunal remains were

excavated at all three sites. Analyses of the faunal remains indicate that the animals were slaughtered on site, which at least hints at possibility of sacrifice as well (Crabtree 2007: 169). The bones are often severely fragmented and calcined, indicating that they were exposed to a wide range of temperatures, and are found among burnt material (Murphy 2002: 19). The volume of burnt bones is one of the key indicators that these were sites of feasts and/or sacrifice (Lynn 2002: 17). Butchery marks are found on the majority of the bones, strongly suggesting they represent food refuse, but this was food refuse situated outside domestic settings (Crabtree 2007: 166, McCormick 1997a: 117).

4.4 The Irish Pantheon

The vast majority of our knowledge of the Irish deities comes from the mythological texts written at least 300 to 400 years after the Christianization of Ireland, most significantly later (Johnston 2007: 202). This obviously presents a number of problems when attempting to determine the original nature of these deities. Even if the authors had meant to record a faithful version of the original myths, so much time had passed since the pre-Christian era that they likely didn't know the original forms: these tales were orally transmitted and there were probably a number of different versions even when they were contemporary. Also, though the early religions survived to an extent possibly as late as the 8th century AD, the well-organized druidic community did not, and they were the official 'keepers' of that particular knowledge. Furthermore, the early clerics had a vested interest both in discouraging paganism and in preserving their own Irish heritage, so many characters presumed to have originally been gods were euhemerized into heroes, kings, and fairies, thus safeguarding the ancient stories without promoting the old religion*.

Though the Classical authors did describe a number of Celtic ritual activities, few of them named the particular deities the ceremonies were dedicated to. This makes it difficult to draw linguistic parallels between the names of Continental, British, and Irish deities. Caesar, for example, does mention several specific Gallic deities, but he identifies them with Roman names (1998: 142).

There is also a lack of helpful archaeological evidence to this effect. The prehistoric Irish rarely depicted their gods literally in their art, unlike a number of images from the Continental Celtic art, and though there are instances of the Irish ogham writing in prehistoric contexts, most are territorial markers and grave stones with no mention of the deities.

Considering these points, it is possible at least to gain an idea of the nature of the Irish deities through the consistent and repeated themes that arise. Some figures are far better represented in the myths and as such, we have a better idea of their original significance. Like many pre-Christian pantheons, the Irish gods were extremely anthropomorphic; they had human-like motivations, needs, and desires. As Raftery explains, the gods "were capricious and moody, at times benevolent and helpful, at times malicious and spiteful. It was necessary to mollify and appease them constantly by means of offerings, by the correct rituals and by the proper manner of behavior (1994: 178)." As with many early European cultures, there was no real line between the natural and the supernatural to the Celts. The world of mortals and the world of gods existed in tandem with one another and directly affected each other. Any unexplained phenomena would have been attributed to their deities. The majority of specific characters that we can identify clearly have strong connections to the seasons, livestock, agriculture, and fertility in general.

4.4.1 The Dagda

The Dagda, a paternal-type sun-god, may be the only character in the myths still specifically referred to as a god and is one of two strong candidates for the original head of the Tuatha Dé Danann pantheon, the gods thought to have been connected specifically with the Celts who arrived in the Iron Age. His name translates to the "Good God," though this is not meant as a moral indication, rather that he is all-powerful. The Dagda "performed miracles and saw to the weather and the harvest and that is why has was called the Good God (Gantz 1981: 39)." The fecundity of the land and people was dependent on his good-will and he is often portrayed with a hammer and a cauldron (Ó hÓgáin 1999: 63) and he has two magical pigs, one who is always cooking, the other always alive (MacKillop 1998: 125). In the *Cath Maige Tuired*, he single-handedly rescues the cattle herds with his magical milch

*See Appendix 1 for a partial reconstruction of the Irish pantheon's genealogy.

the heifer which had been given him for his work; because when she called her calf, all the cattle of Ireland which the Fomoire had taken as their tribute began to graze (Gray 1995: §165)."

He may be related to Dis Pater, the ancestral god named by Caesar, the "god of night, death, and the dark underworld (1998: 145)," which since the Irish seemed to believe in a coexisting duality between light and dark, does not necessarily contradict his role as a sun-god. As such, he is also associated with both Samhain and Beltaine, the seasonal markers between the dark half of the year and the light half (Ó hÓgáin 1999: 109). He was undeniably a fertility god of some kind, most of his stories portray him either feasting or fornicating, and like the Roman Jupiter, he has countless children, nearly all with different goddess mothers. In one of the most significant tales, "The Wooing of Étain," the Dagda sleeps with the goddess Bóand who, in her own right, has strong connections to the land. When he decides that he desires Bóand, the Dagda tricks her husband Elcmar into leaving on an errand. He then stops the sun for nine months so that Elcmar will believe that only a day has past while Bóand carries and gives birth to their son Aongus, the god of youth and beauty (Gantz 1981: 39).

4.4.2 Lugh

Lugh, the 'Long-Armed' and 'multi-skilled' god, is the second potential head of the pantheon and possibly was the most important deity of all. His name, Lugus in the Gaulish language, is at the root of several ancient Celtic settlements, for example, the city of Lyon in France. He is associated with lightening and harvest-time and like the Dagda, is connected to idea of a sacred king, the divine examples of the sacred Irish kinghip. He is rarely portrayed in a negative light, and in the story of his arrival among the Tuatha Dé Danann, he mysteriously appears before the battle of Mag Tuired, just in time to lead the Tuatha Dé army against their enemies, the Fomoire (Gray 1995: §53-71). He is associated with many ritual sites of Ireland, often the father or consort (or both) of the patron goddess of the site and as mentioned before, the harvest festival, Lugnasad, and the month of August (both the same word in Irish) are named after him.

Though sovereignty was thought to be gifted by a female deity, Lugh seems to have been the one who chose who it would be bestowed upon. In one tale, the mythical King Conn is transported to the Otherworld, at Tara, where he meets Lugh and the goddess of sovereignty, who confirm him as the rightful king of Ireland (Gregory: 1904 69-70). In what may be a remnant of the original creation myth, Lugh was also indirectly responsible for providing the continued well-being for all the cattle of Ireland (and their crops as well) by extracting such a promise from Bres the Beautiful in exchange for his life at the battle of Mag Tuired:

Immediately after [the battle] they found an opportunity to kill Bres mac Elathan. He said, 'It
is better to spare me than to kill me.'
'What then will follow from that?' said Lug.
'The cows of Ireland will always be in milk,' said Bres, 'if I am spared' …
'Tell your lawyer they will reap a harvest every quarter in return for sparing me' …
So through that device Bres was saved. (Gray 1995: §149-161)

4.4.3 Bóand

Bóand, already mentioned is connection to the Dagda as a fertility goddess, was
likely one of the most significant female deities in Iron Age Ireland. Her name translates to
'white/illuminated cow,' obviously associating her with cattle and the largest river in Ireland,
the River Boyne, was named in her honor. The antiquity of that designation can be seen in
Ptolemy's *Geographia*, complied in the 1st century AD, which names the river as *Bouvinda*,
another name for Bóand (Fig. 3). Water and milk are often symbolically synonymous ideas in
Irish ideology, and river goddesses in the form of cows are actually common in a number of
Indo-European mythologies (Ó hÓgáin 1999: 112). In poetic Irish verses, *Druchtu Déa* or
'dew of the goddess,' was an kenning for corn and milk and the 'dew' was produced when

the goddess (representing the land)
was impregnated by the god
(representing the sun) (Ó hÓgáin
1999: 111). The story of the Dagda
sleeping with Bóand is a more literal
example of just such a scenario. She
is, not surprisingly, the provider of
cattle in many stories. In the "Cattle-
Raid of Fróech," she and her sister
Bé Find (his mother) are the source
of all his wealth and treasures,
including the white, red-eared cows
(Gantz 1981: 114). White, red-eared
animals in Celtic tales are always
magical creatures from the
Otherworld, making her designation
as the 'white cow' especially
significant.
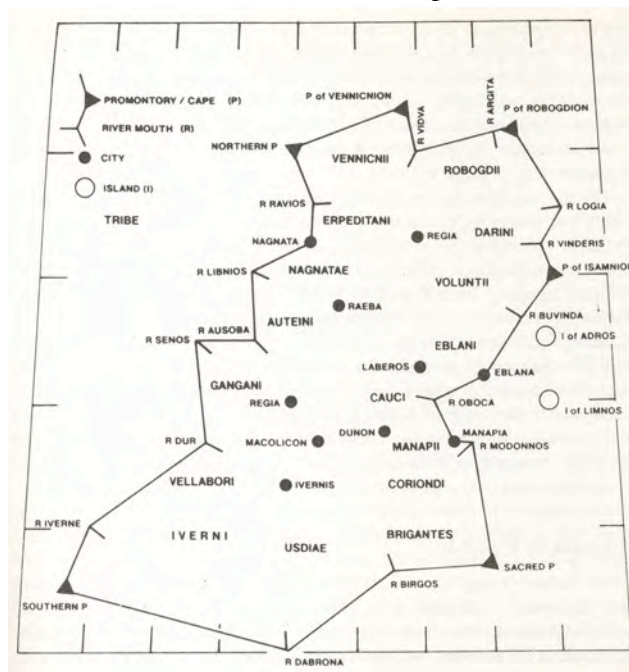
Fig. 3: Ptolemy's Map of Ireland (Raftery 1994)

4.4.4 Brig

The goddess Brig, or Brigid,
better known in her euhemerized version as a saint, carries many of the same associations as
Bóand. Whether or not St. Brigit really existed, her tales are heavily influenced by the former
deity of the same name. She too is strongly connected to fertility and cattle, best seen in the
folkloric practices dedicated to the saint. In some parts of Ireland, St. Brigit is still called
upon through a charm called the *Brat Bríde* to bless the women with children and the cows
with milk (Ó Catháin 1995: 2-3). As stated earlier, Brig is associated with the spring festival
Imbolc, now synonymous with St. Brigit's feast day, who is said to travel with a white (i.e.
sacred) cow, sometimes identified as the *Glas Ghoibhneann*, the mythic cow belonging to Cian,
Lugh's father (Ó Catháin 1995: 143). She was also the tutelary goddess of Laigin (Leinster),
and thus, the patron goddess of Dún Ailinne (MacKillop 1998: 58). Within the mythologies,

she is the daughter of the Dagda (Gray 1995: §124) and both she and the saint are connected to water, fire, poetry, healing, and smithcraft. She is said to have two sisters by the same name, an example of the sacred Triad in Celtic symbolism.

4.4.6 Medb

Medb and Macha offer a slightly different picture of an Irish female deity. Both are strongly associated with sovereignty, battle, and fertility. Medb is one of the leading figures in the *Táin Bó Cúailnge* as the Queen of Connachta and the instigator of the war with the Ulaid in her desire for their mythical Brown Bull (Kinsella 1969: 52). Her popularity was quite wide-spread as it is believed that she was the principal deity at both Tara and Crúachan and, as the following passage illustrates, played a major role in the inauguration rituals: "Great indeed was the strength and power of that Meadhbh over the men of Ireland, for it was she who would not allow a king in Tara unless he had her for a wife (Ó hÓgáin 1999: 134)." Her role as a fertility goddess is often more akin to the Dagda than to Brig or Bóand. The myths list her as married to quite a number of different gods and mythological kings, but she always the dominant partner and often is said to use sex to advance her cause. It is difficult to know much of this was manipulated by the early Christian writers, since it's usually portrayed in a negative light, but consistent theme suggests that she was strongly associated with fertility.

4.4.6 Macha

 Macha is not mentioned quite so often in the myths as Medb, but she carries all the same associations of sovereignty, battle, and fertility. She was the patron goddess of Emain Macha, named in her honor. She is connected to deities in both Britain (with Rhiannon) and Epona (in Gaul) in her role as a horse-goddess. It isn't surprising then, that Cambresis's account of horse sacrifice, mentioned before, takes place in Ulster. Macha is also part of the Mórrígna (Ir. 'great queens'), a Triad of rather frightening, shape-shifting, war-goddesses repeatedly sited as a cause of countless battles and conflicts (MacKillop 1998: 337). In "The Labor Pains of the Ulaid," one of the place-name myths of Emain Macha, she is forced into a foot-race with the king's horses, despite the fact that she is pregnant. When she reaches the finish line (and wins), she gives birth to twins, identifies herself as the goddess, and curses all the men of Ulster with labor pains for their cruelty (Gantz 1981: 129).

4.5 The 'Royal' Sites

For each of the five Iron Age provinces of Ireland, there is a corresponding ritual center, a kind of capital: Teamhair (Meath), Emain Macha (Ulster), Dún Ailinne (Leinster), Crúachan (Connacht), and Caisel (Munster). The archaeological evidence of those that have been closely examined consistently supports the theory that these were extremely significant religious sites for thousands of years, not only in the Iron Age. The early Irish texts not only emphasize the 'pagan' elements associated with these sites, but their role as the symbolic seat of Irish kingship. They are repeatedly referred to in the myths as the dwelling places of various important deities and each is especially associated with at least one particular female deity. According to Caesar, the concept of a sacred center in a Celtic territory seems to have existed in Gaul as well: "On a fixed date in each year [the druids] hold a session in a consecrated spot in the country of Carnutes, which is supposed to be the center of Gaul (1998: 140)." Unfortunately, though we can see a parallel with the activity on the Continent, there are no Classical references to Ireland's royal sites specifically, save for a single name on Ptolemy's map, Isamnion, which may represent Emain Macha (1991: 45) (see Fig. 3).

Excavations in recent decades have revealed "significant common cultural, architectural and spatial motifs (at least for the later phases) indicating possible contemporaneity and commonality of purpose, and, most importantly, revealing the predominantly ritual character of these sites with little evidence for settlement (Newman 1998: 129)." The overall purpose of these sites, as ritual centers, is no longer disputed in anyway. Both Dún Ailinne and Emain Macha have been thoroughly excavated in recent decades as has Tara to a far lesser extent, so we now have a great deal of archaeological evidence to work from. Crúachan was recently surveyed, but with no actual excavations, so we have far fewer details of Connacht's capital. The same holds true for Caisel, plus there is evidence that southern Ireland may not have been as culturally related to the other four regions during the Iron Age. There's next to no evidence of a La Téne presence in all of Munster, and though they were certainly Celtic, the earlier Bronze Age Celtic culture may have survived there much longer than in the northern areas (Raftery 1994: 228). As such, I will focus primarily on Tara, Emain Macha, and Dún Ailinne, and to a lesser degree, Crúachan.

Fig. 4: Map of the Five Provinces and 'Royal' Sites

All three sites include the remains of extremely similar Iron Age structures: circular, wooden, hilltop hengiform enclosures with an internal ditch, (differentiating them from an externally-ditched defensive structures) and external bank, some in a distinctive figure-eight shape (Raftery 1994: 65). Very similar structures have been found in Britain as well (Robertson 1992: 25). Any one of these structure were large enough to have demanded considerable manpower, resources, and the political power to direct their construction. Of the two thoroughly excavated sites, Emain Macha and Dún Ailinne, there is strong evidence that some of the structures were destroyed shortly after they were constructed, either through fire or dismantling, and considering the amount of work it would have taken to built them in the first place, it is thought that they may have been destroyed for ritual purposes as a kind of sacrifice (Lynn 1992: 40). Though no extensive excavation has been performed on the structures at Tara, one myth tells of a god, Aillén mac Midgna the 'burner,' who incinerated the sídh 'palace' of Tara every year at Samhain until he was killed by Fionn mac Cumhaill (MacKillop 1998: 9).

The construction period coincides with first appearance of high-status La Téne artifacts, implying that a new group of Celts from Britain or the Continent may have immigrated to the island and taken power (see Sec. 1.3 for the problems of immigration vs. indigenous influences in Ireland) (Raftery 1994: 65). Each one includes evidence of ritual activity spanning from the Neolithic to the historic period, and that continuity plus the ritual

reuse of older monuments in later activities and the deliberate attempt to incorporate those earlier structures within newer ones implies that each group (for no claim is made for cultural continuity over 3,000 years) understood that the sites were already considered sacred (Newman 1997: 68). It should be noted that the ritual reuse of older monuments makes typical dating techniques extremely difficult to utilize, so oftentimes, dating a feature to the Early or Late Iron Age is as exact as one can surmise, though chronologies for individual sites can usually be established.

Some of the mythological stories about the sites are likely medieval inventions used to explain their names, but they incorporate the deities that may have originally been associated with them and there are enough consistent connections between these characters and the locations, beyond the place-name stories, to support those connections. Likewise, though the details of the myths may be later inventions, the overall themes, symbols, and general activities attributed to the sites are repeated so often that they are likely echoes of the original oral myths and real activities.

4.5.1 The Hill of Tara

Temair free from feebleness hides not
the glory due to women for its building
……………………………………….
The abode was a keep, was a fortress,
was a pride, a rampart free from ravage (Gwynn 1991 I: 7)

The Hill of Tara, or Teamhair na Rí, is the largest and best-known of the Irish ritual sites. It serves as the center of Meath (Mide), and later in the historical period, it was considered the symbolic seat of the High King of Ireland, and contemporaneous documents state that it continued to be used as the site of the king's inauguration well into the early Christian Era. This does not mean that it was used in precisely the same manner in the Iron Age, but the fact that it was chosen for such an event supports that it was still considered a very important site, either spiritually or secularly, and may indicate their "desire to concord the sustaining role of the divine in early kingship with the medieval tradition … and a desire to associate, legitimately or otherwise, with ancestral territorial markers" (Newman 1998: 130).

There are multiple examples of ring-ditch enclosures in and around the Tara complex, the two most significant areas being the Ráith na Ríg and the Ráith na Senad (Fig. 5). The largest hengiform enclosure, the Ráith na Ríg (Rath of the King), sits on the summit of the hill, certainly the pinnacle of the site, and has recently been dated to around the 1ˢᵗ c. BC, though the precise absolute dating is still forthcoming (Roche

Fig. 5: The Forrad and Teach Cormaic on Ráith na Ríg (Newman 1997)

1998: 29). Post holes from a palisade trench just inside the external ditch surrounding the entire area were recently found in a small excavation (Roche 1998: 26-28). In its center are two conjoined Iron Age earthworks, The Forrad and the Teach Cormaic that form a figure-eight, both with the internal ditches and external banks. Within the Forrad stands the Lia Fáil, a pillar-shaped stone that originally stood in the center of the Teach Cormaic (Ó hÓgáin 1999: 130). From the shape of the larger ring, it appears that an effort was made to include older Neolithic and Bronze Age monuments within the ring. A recent (though rather small) excavation in the ditch and external bank revealed a significant number of animal bones (discussed further on), human skull fragments, and the remains of an infant burial (Roche 1998: 27).
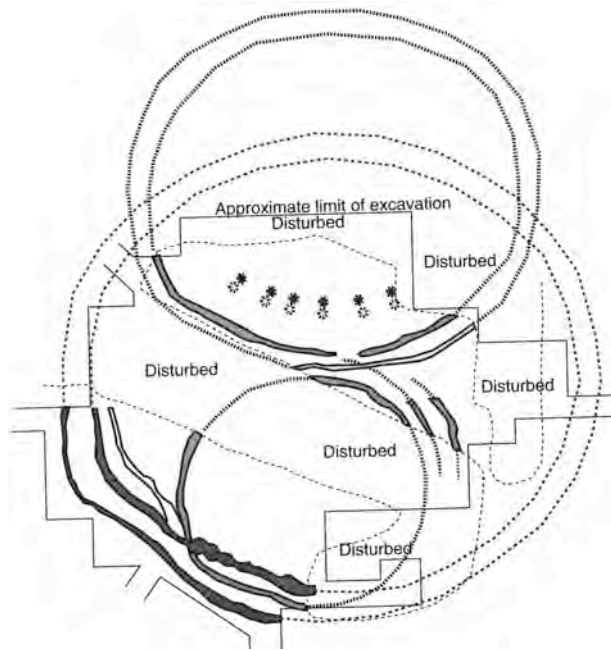
Fig. 6: Ráith na Senad Outline (Cooney 1994)

The Ráith na Senad (Fig. 6), the second largest enclosure, has unfortunately been badly damaged by the church built next to it and a turn-of-the-century search for the Ark of the Covenant (Newman 1997: 91, 94). It includes similar bank and fosse enclosures, both a circular structure during one Iron Age phase and a figure-eight structure in another (Newman 1997: 96). A GPR survey of the complex recently revealed that the entire rath is surrounded by a circular palisade of 300 post holes, each two meters across, that joins the Ráith na Senad with the Ráith na Ríg.

The number of mythological stories related to Tara could fill its own book and it was easily the most important location in all of Ireland for most of its early history and prehistory. It is claimed as the seat of kingship for a vast number of divine king-gods, ruling over both Mide and Ireland as a whole and is repeatedly connected to the feasts of Samhain. The site is said to be named for Téa, a daughter of Lugaid (maybe Lugh), a rather minor character in the myths, but the site is far more strongly connected to Lugh and Medb.

Lug was considered the manifestation of kingship at Tara. The story of Conn of a Hundred Battles perfectly illustrates the significance of the Ráith na Ríg, the Lia Fáil, and the role of the deities:

> Conn was in Teamhair one time, and he went up in the early morning to the Rath of the Kings at the rising of the sun … And on this day he chanced to stand upon a stone that was in the rath, and the stone screamed under his feet … Then Conn asked his chief druid how the stone came there, and what it screamed for … 'The Lia Fail is the name of the stone … And as long as there is a king in Teamhair it is here will be the gathering place for games, and if there is no king to come to the last day of the gathering, there will be hardness that year … And while they were in the same place, there came a great mist about them and a darkness, so that they could not know what way they were going, and they heard the noise of a rider coming towards them … he came to them and bade Conn welcome, and asked him to come to his house. They went on till they came to a beautiful plain, and there they saw a king's rath … And there was a young woman in the house, having a band of gold on her head … She said then to the master of the house: 'Who am I to serve drink to?' 'Serve it to Conn of the Hundred Battles,' he said, 'for he will gain a hundred battle before he dies' … And the master of the house told them the young woman was the Kingship of Ireland forever. 'And as for myself,' he said, 'I am Lugh of the Long Hand, son of Ethlinn.' (Gregory 1904: 68-70)

As mentioned previously, Medb is the manifestation of sovereignty at Tara (likely the woman in Conn's story) and it's believed she was the primary deity to which the ritual activities were dedicated to. One ritual referenced in the medieval texts, the *ban-fheis*, or the feast of the kingship inauguration, literally means 'sleeping with a woman,' when the new king was symbolically wed to the goddess, and thus the land.

The archaeological evidence of ritual activity is rather scant since only one very limited excavation has been performed, on the Ráith na Ríg specifically, in decent decades, involving only two ditch cutting on the northern end of the rath and two small samples beneath the bank of the enclosure (McCormick 2002: 103). However, even from this rather small excavation, over 400 species-identifiable bone fragments were recovered. Cattle predominate the assemblage, making up almost half (48.1%) of all the faunal remains recovered, with pigs accounting for 22% (McCormick 2002: 104). The sample was too small to gauge an detailed ageing pattern of the cattle slaughtered, but most seem to have been more than three years old (McCormick 2002: 106). If this was reflective of typical subsistence, it would contradict the theory that the Iron Age Irish used cattle primarily for dairying.

Pigs are usually the second most common type of animal bone found in prehistoric Irish sites including Tara, sheep at third, but there was also an unusually high number of horse bones (6.2%), the largest amount ever found, with obvious butchery marks, giving credence to the anecdotes and mythological traditions of horse sacrifice (McCormick 2002: 106-7). An unusually high number of dog bones were found as well (9.4%) (McCormick 2002: 107) and some of the earliest Irish writings tell of a druidic divination ritual involving the sacrifice and consumption of dogflesh (Ó hÓgáin 1999: 79).

Even with a very limited sample, Tara's faunal assemblage is indicative of consumption patterns that would be extremely unusual in a domestic setting. The cattle being slaughtered are of the most valueable variety: if this was a dairying economy, those who would have provided the most milk. The butchery marks are obviously indicative of consumption, and the location of the bones, away from domestic sites, indicates feasting, but it is possible that sacrifice was involved as well. These early results are already intriguing by themselves, and the extensive, recent ground-penetrating radar survey of Tara is meant to be used as a reference for future work at the site. Hopefully future excavations will be performed to provide a fuller picture of the faunal assemblage and related ritual activity.

4.5.2 Emain Macha

'My name and that of my children will mark this fairground for ever – I am Macha daughter of Sainrith son of Imbath,' she said. She raced against the chariot, then, and, as the chariot reached the end of the field, she gave birth in front of it, and she bore a son and a daughter. That is why the place is called Emain Macha. (Gantz 129)

Emain Macha, also called Navan Fort, was the ritual capital of Ulster. If Tara is the most significant site in all the Ireland, Emain Macha runs a very close second place. There are several different Iron Age structures within the complex, all likely ceremonial in nature. The 40 Meter Structure (Site B) is the largest and most impressive (Fig. 7 and 8). Through dendrochronology dating of its center post, we know that it was built in 94/95 BC. It is a circular structure of multiple oak rings leading to a massive central post that may have been as tall as 13 meters (Raftery 1994: 78) and is situated near the summit of the area within an earlier hengiform earthwork (Robertson 1992: 25). After the wooden rings were constructed, a limestone cairn was added to the inside, and the entire structure was then deliberately burnt to the ground and covered with a clay mound (Lynn 1992: 33). All the evidence suggests that it was built with the intention of a very short lifespan and meant only for ritual (non-domestic) use (Lynn 1992: 34).

Fig. 7: 40 Meter Structure Outline (Lynn: 1992)

The purpose of the earlier Iron Age structures built at Site A/C is still debated. It consisted of two conjoined circular structures with triplicate rings, a figure-eight, possibly with an entrance palisade off the larger northern circle. Before the archaeologists realized that the rings were conjoined (in much the same way as ritual structures at Tara and Dún Ailinne) and due to artifactual evidence of what could indicate occupation, it was first assumed that they were high-status domestic dwellings. However, after further excavation showed the relationship between the two ring, and other evidence indicated the same sort of thorough burning as at Site B, and burnt bone indicative of ceremonial feast and/or animal sacrifice was discovered, it was concluded that they may have been used for ceremonial
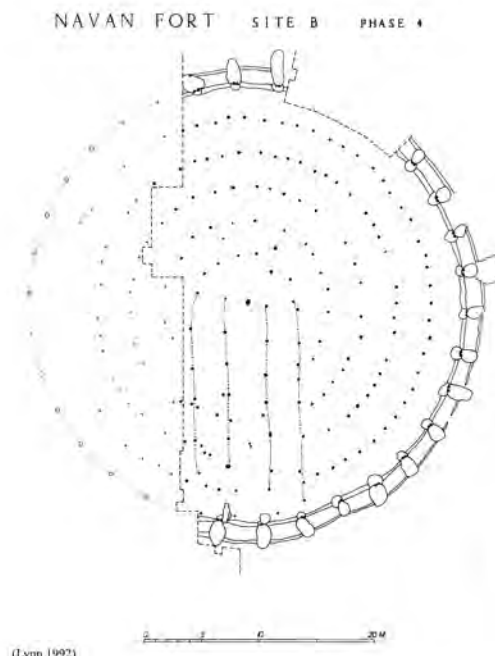
purposes (Lynn 2002: 17). The fact that no other Irish ritual site thus far has shown any strong evidence of occupation supports this more recent conclusion.

According to the myths, Emain Macha was the sacred seat of kingship in Ulaid and it is one of the two main settings of the Táin Bó Cúailnge. Like Tara, it is repeatedly said to be the site of feasts, assemblies (óenach), and fairs, especially at Samhain. Several different stories of how the site came to named for Macha, but she is always the primary deity associated with the site. She was the equine land-goddess to whom the king must be symbolically wedded, and *macha* was one word used to define a certain portion of land or enclosure (Ó hÓgáin 1999: 174). The first part of the site's title, *emain* or *eumania* is probably rooted in the Celtic word *isomnis*, or 'sturdy posts' (Ó hÓgáin 1999: 172). Ptolemy in fact refers to the site as Isamnion in the 1st century ad (1991: 45).

The archaeological evidence of feasting or sacrifice, specifically the faunal assemblage, is highly variable from one part of the complex to another. The majority of bones found in all areas bear butchery marks, or at least those not burnt so thoroughly as to make it impossible to tell, so they generally represent food refuse (McCormick 1997a: 117-8). Within Sites B and C, pigs actually predominate the record, though cattle are second (exact percentages vary considerably) and cattle still would have provided the majority of meat by weight alone (McCormick 1997a: 118-9). Unlike the cattle remains, the high

Fig. 8: Reconstruction of 40m Structure (Raftery 1994)

proportion of pig remains cannot be explained by environmental factors, but it can be attributed to the Irish notion of pork as a high-status food and to the Otherworldly connotations attached to pigs and boars, as sited repeatedly in a number of Irish myths. Though the assemblage doesn't emphasize cattle as the most valued domesticate in this particular context, (and there's bound to be some variation between the regions despite their close relationship) it does support the idea that there was a ritual overtone to the consumption patterns at Site B and C, further supported by the comparative faunal assemblage at Haughey's Fort, the neighboring settlement site (though they are not quite contemporaneous), where cattle are the dominant species (67.8%) (McCormick 1991: 48).

Within Site C specifically, the bones were so fragmentary that only 11% could even be identified by species (Murphy 2002: 19). Most were severely burnt and it appears that they were subjected to a wide range of temperatures. The cremated bones and various burnt material at Site A and C can be associated with the deliberate burning of the Site A/C Structure, which may be indicative of ceremonial feasting and/or sacrifice (Lynn 2002: 17). Within Site A and the Navan Ditch, cattle are the dominant species found, and both are contemporaneous with the other two areas (exact percentages were not reported) (McCormick 1997b: 145, McCormick 2000: 38). The variety from one area to the next within
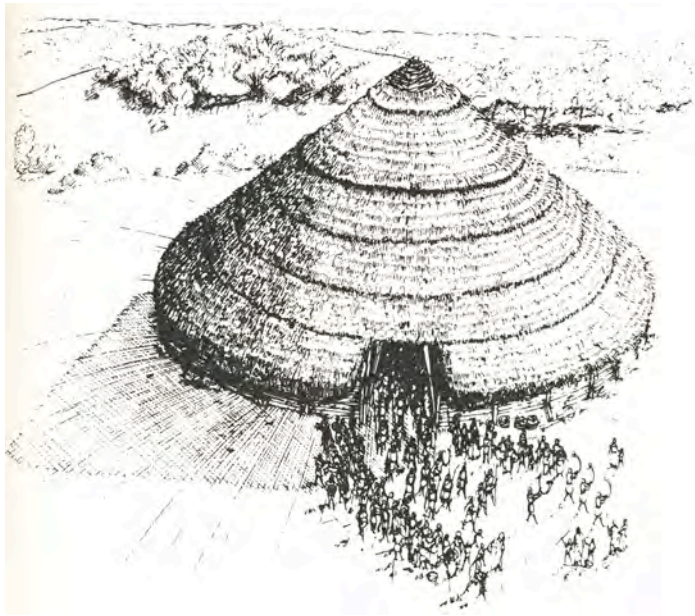
the complex is perplexing, but if they are the result of ritual feasting and sacrifice, it could suggest various practices were performed dependent on the particular ceremonial occasion. There were not enough cattle remains to provide a decent age-of-slaughter pattern at Emain Macha, but they were likely mature animals as at Tara (McCormick 1994: 185).

Sheep/goat remains were found in very small numbers, but as at Tara, a number of horse remains also were found with butchery marks (though not nearly as many as at Tara) (McCormick 1997a: 120). Considering the equine associations with the patron deity of Emain Macha, it would be surprising if this were not the case. Along with the animal remains from Site B, a single human clavicle was found (McCormick 1997a: 120) and at Site C, a human skull fragment and tooth were found (Murphy 2002: 19). While it is impossible to know exactly what activity resulted in their presence, funerary or sacrificial, it strongly supports the involvement of religious practices.

4.5.3 Dún Ailinne

> Here dwelt the wife of Balla,
> heroic daughter of Lugaid;
> the clan was not disgraced by her repute;
> from her came the royal name of Alend.
> (Gwynn 1991 II: 81, 85)

Dún Ailinne, or Knockaulin, is not so well-known in the myths, but as a ritual site, it is equally as impressive as Tara and Emain Macha. It was the ritual center of Leinster (Laigin) and within the Iron Age, saw three separate construction phases (Fig. 11). Each structure was disassembled before constructing the next, never left to rot away naturally (Wailes 2007: 13). The initial White Phase (Dún Ailinne's phases were given 'nonsense names' by the archaeologists and have no special significance) is the simplest

Fig. 9: Reconstruction of Rose Phase (Wailes 2007)

of the three, a circular palisade trench possibly with a small ring of free-standing post in the center (Wailes 2007: 13). The Rose Phase structure (Fig. 9) is a figure-eight of two conjoined circles, plus an entranceway off the larger northern circle (Wailes 2007: 13). The larger circle is made of three concentric rings, the smaller 'annex' circle of two concentric rings, possibly as viewing platforms (Wailes 2007: 14). The final Mauve Phase (Fig. 10) consists of a circular structure of three separate, related constructions. The outer ring is made of two concentric trenches enclosing a palisade, with an elaborate gateway (Wailes 2007: 16). The second is a ring of free-standing posts, some of were subject to intensive burning near the surface (Wailes 2007: 17). The third center circle may have been a small wooden tower or 'viewing stand' (Wailes 2007: 18-9). Directly following the three structural phases is the so-called Flame Layer, the last of the Iron Age phases. The only construction in this period was the addition of a stone-paved area (Crabtree 2002: 63). This is, however, where the majority of the faunal remains were found, the largest faunal assemblage ever found within any Iron Age Irish site.
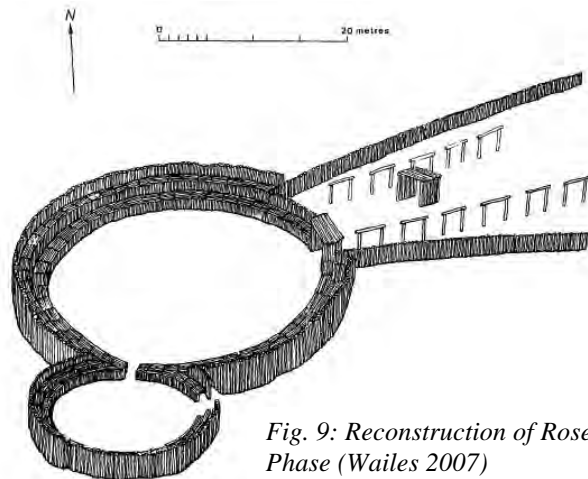
There's a great deal less in the texts on Dún Ailinne, though as previously stated, it is identified as the symbolic seat of the Leinster kingship. Geographically, it is the closest site to Tara, it's possible that it was a bit overshadowed. It's name is usually attributed to a minor female deity called Aillenn (or Alend), the daughter of king Lugaid (possibly referring to Lugh), who was kidnapped and died of shame on the hill (Stokes 1895: 310). Brigit, however, is more often associated with the site (Hicks 2007: 185). She was the tutelary goddess of Leinster, and as previously mentioned, she's strongly associated with fertility, cattle and milk, poetry, and fire.

Fig. 10: Reconstruction of Mauve Phase (Wailes 2007)

Outside of containing the largest faunal assemblage ever found within the Iron Age in Ireland (18,755 bones and fragments), it is also possibly the most intriguing collection (Crabtree 2007: 157). Due to its size, far more conclusions can be made from the evidence than at Tara or at Emain Macha. As noted, the majority of the bones were found within the Flame Phase, the last of the Iron Age phases (Crabtree 2002: 63) though a large number of bones were also found in association with the Rose and Mauve Phases (Crabtree 2007: 158). The extremely thin humus layers throughout the phase suggests that the site was used repeatedly for years, with short periods of inactivity no longer than a single year (Wailes 2007: 21).

Cattle remains predominate in nearly every phase and layer (53.8%), followed by pigs (36.5%), sheep/goat (7.1%) and horse (2.5%), all with butchery marks (Crabtree 2007: 160) and the distribution of body parts, all parts of the skeletons were found, implies that the animals were brought to the site before being slaughtered (Crabtree 2007: 161). This seems to be the case at Emain Macha as well (McCormick 1997a: 120).

Unlike Tara and Emain Macha, the majority of cattle were slaughtered at a very young age, most under 6 months and over half of all the cattle remains were under a month old, though the rest were mostly over 4 years of age (Crabtree 2007: 162). This is neither indicative of a dairying or meat-based economy, if we are tempted to view the evidence as subsistence. If it were a dairying economy, killing calves before they were 6 months of age would stop their mothers from lactating. If it were a meat-based economy, slaughtering calves at such an immature size would have been counterproductive. No matter which economic context it is in, a slaughter pattern like this would have been extremely expensive (Crabtree 2002: 64). Whether for political reasons or religious ones (or both), the Leinster kings and/or druids felt the need to slaughter extremely 'expensive' animals. It is impossible to know it this was for the sake of political clout at ceremonial feasts as conspicuous consumption versus actual religious sacrifices to the gods, but both are possibilities and are not exclusive of one another.

The number of calves slaughtered also makes it unlikely that they came from a single herd, since doing so would have made the herd unviable (Crabtree 2007: 169) This seems highly reflective of the system described in the Irish law tracts, where the populous paid a tribute, usually in the form of cattle, twice a year to the local king who in turn paid a tribute
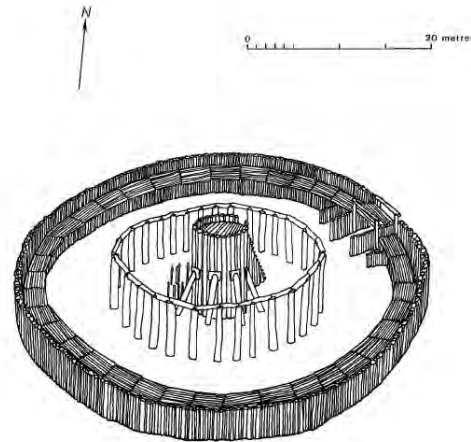
to the king above him. As Dún Ailinne was the capital of all of Leinster, the cattle likely came from all over the entire province to make the massive feasts possible.

The large number of neonates also makes it possible to roughly judge what time of year they were slaughtered. The calves were probably born some time in March, as they are today, so the large number neonate calves would have been slaughtered between April and May. The older calves would have been slaughtered in late September or early October (Crabtree 1990: 24). According to the Irish calendar, the first of these corresponds very closely to the Beltane festival, just before the herds would have been taken to the summer pastures. Also, there are numerous stories of ritual bonfires at this festival where the cattle were driven between two such fires to protect them from disease, and the Flame layer is absolutely covered in burnt material (Ó hÓgáin 1999: 97). The second date does not correspond so well to the Irish calendar, though it is only a few weeks away from Samhain. This particular holiday is often said to have lasted as long as a month, so this could still indicate the beginnings of such a festival. Either way, autumn was undoubtedly the time of year when the excess animals would have be

slaughtered in preparation for the winter months, so the domestic activity associated with that time of year is still synonymous with the timeline at Dún Ailinne.
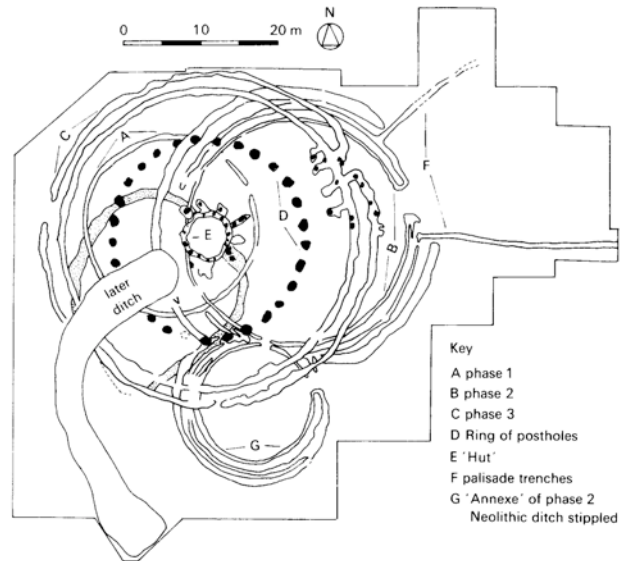

Fig. 11: Three Phases of Dún Ailinne Iron Age Activity (Johnston and Wailes 2007)

4.5.4 Crúachan

Said Cruachu the lovely,
in presence of the spacious tribes,
"O Midir, yet unconquered,
shall my name be on this Sid?"

He gave the fine dwelling as reward for her journey
to Crochen, a fair recompense:
by Midir, report says, northward at his home,
by him her name was given to it as ye hear.
………………………………………………….
It was Crochen of pure Cruachu
who was the mother of Medb great of valor" (Gwynn 1991 III: 351-355)

Unfortunately, no excavations have been performed as yet at Crúachan, also commonly referred to as Rathcroghan. However, there are nearly fifty known monuments within the complex, with a central mound near the center. Some are distinctively Neolithic,

Bronze and Iron Age in appearance, compared to the monuments at well-dated sites. The only examination so far, in 1981, did give a radiocarbon date of between 350 BC and 230 AD, placing at least one feature, Daithi's Mound, within the Iron Age and roughly contemporaneous with the other sites (Raftery 1994: 70).

There are nearly as many mythological stories about Crúachan as there are of Tara. It was the symbolic seat of kingship in Connacht and is repeatedly connected to Samhain feasts. It shares the same sovereignty goddess as Tara, Medb, more thoroughly discussed earlier. There are in fact more stories connecting her to Cruachan than to Tara. The site said to be named for her mother Cruacha, the handmaid of the queen Étaín, both kidnapped by the god Midir in "The Wooing of Étaín." Several different monuments within the complex are sited as locations in the Táin Bó Cúailnge, including Medb's palace and the site of the great bull-fight between the mythical Brown Bull of Cooley and the White Bull of Connacht, the Ráith na Darbh.

Of course, since no excavations have been performed, there is no evidence as yet of specific ritual activities. However, due to the strong morphological similarities of the rings and mounds of Cruachan and those at Tara, Emain Macha, and Dún Ailinne, it extremely likely that similar evidence will be found if an excavation is performed in the future.

4.5.5 Comparisons of the 'Royal' Sites

The similarities between all four ritual sites are remarkably strong, implying that not only were these sites at least roughly contemporaneous, (and the absolute dates support this), but that those who planned and constructed them were very culturally similar, and likely in communication with one another (Fig. 13). The very short life-span of most of these structures makes it unlikely that any one group was mimicking the previous structures of another group, which does seem to be the case with the construction of certain types of Bronze Age mounds. Such structures are never found within domestic settings, though admittedly few of these have been found, and little evidence of domestic activity exists.

The reasons for building these particular types of structures is somewhat ambiguous, though Warner has a theory that the internal ditch was meant 1) as a demarcation of a sacred space that represented a conduit between this world and the Otherworld, 2) to provide a viewing platform for the attendants of the ritual activity being performed, and 3) most importantly, to keep the gods, who could be rather malevolent at times according to the myths, from leaving the sacred area (2000: 39, 42). The internal ditch of the sacred structures is a perfect reversal of the external ditch found with contemporaneous defensive structures (Fig. 12), so it follows that their function might have been a reversal of that same idea.

The same themes are attached to each of the sacred sites. They are always considered the royal seat of the divine kings and are the location for the 'earthly' king's inauguration. Each one is strongly associated
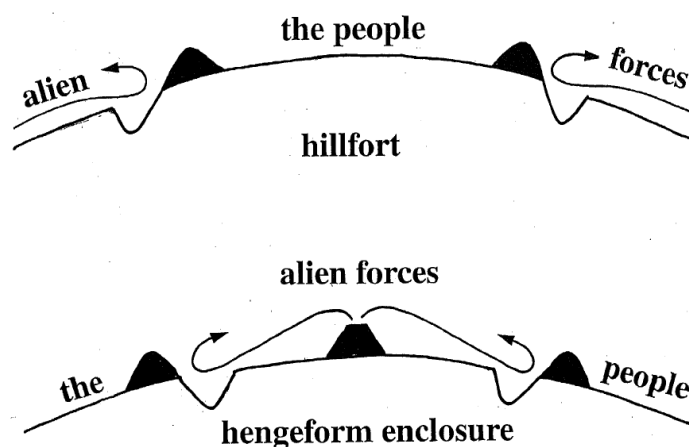
Fig. 12: Hillfort Ditch vs Hengiform Ditch (Warner 2000)

with female deities, symbols of sovereignty and of fertility, quite often with the daughters of either Lugh or the Dagda. The same types of festivals and feasts are said to have taken place within them, especially in connection with Samhain.

Cattle are always a dominant part of the faunal assemblage, either in first or second place. The animals killed are usually either 1) prime age cows, (the sex is not often reported), the most valuable type of cattle according to the law texts if they are female or 2) extremely young calves, the most expensive animal to kill as it would have provided little meat and stopped their mothers from lactating. The butchery marks found on the bones, and near total lack of other domestic evidence, strongly suggest ceremonial feasting at these sites. The body part distribution implies that the animals were slaughtered on site, and though this does not absolutely confirm sacrifice, this would be a prerequisite for the archaeological indication of sacrifice.
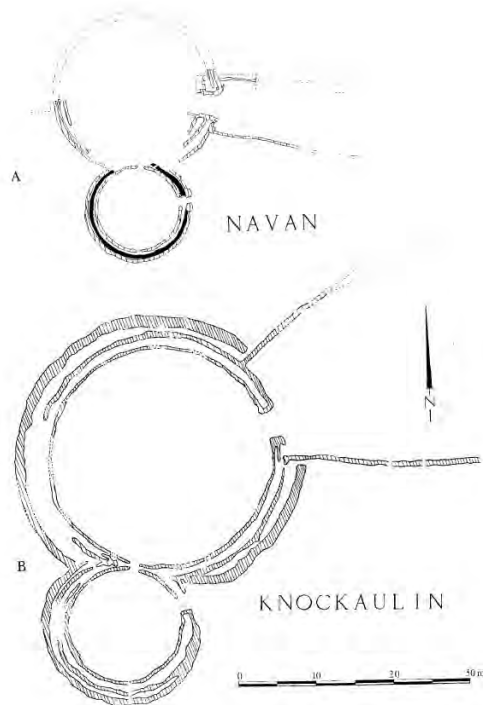
Fig. 13: Comparison of Emain Macha (Navan) and Dún Ailinne (Knockaulin) Structures (Lynn 2002)

Though there were only five major provinces in Iron Age Ireland, and thus only five major capitals, it was suggested years ago by Wailes, the lead archaeologist at Dún Ailinne, that there were likely smaller ritual sites that served the same purpose for the smaller polities within the larger provinces (Wailes 1982: 22). A newly excavated site, Raffin Fort, seems to support this theory. It shares all the share characteristics of Tara, Emain Macha, and Dún Ailinne, only on a smaller scale. No faunal analysis has yet been published, but beneath a stone resembling the Lia Fiall, and other similar phallic-shaped stones at ritual sites, part of a human skull was discovered with a number of animal bones, all of which appear to have been purposefully placed there (Newman 1993: 22). Unfortunately the chemical properties of the soil at Raffin Fort are poor for the preservation of faunal remains and few if any can be identified by species (Newman, personal correspondence, 2008). Nonetheless, this does mean that future excavations of other smaller ritual sites could lead to more evidence explaining the nature of Iron Age ceremonial feasting and sacrifice.

5. Conclusions

The importance of cattle in nearly every aspect of Iron Age Irish life cannot be overstated:

- They represented the principal means of subsistence above all other forms of livestock and agriculture, even if it is still unclear whether they were used primarily for dairy or meat.
- They were an indispensable part of the sociopolitical system as the main form of currency and thus determined one's social class and level of wealth.

- They also served as the primary vehicle of tributary exchanges between the various levels of society. Even a person's life and honor were measured through cattle.

If the cattle were healthy, they provided ample food, useful secondary products, and they allowed the sociopolitical system to run smoothly. If the cattle were unhealthy, the people would have been without their main source of food and the sociopolitical system would likely have collapsed. The entire population would have had a vested interest in maintaining the well-being of the cattle herds.

The Iron Age Irish attributed all natural forces to supernatural forces, i.e. the gods, including the health and welfare of the cattle herds. These gods could be both beneficent and malevolent, and seem to have had very human-like needs and desires that needed to be satiated by the populous. They are not only the primordial source of cattle, but they desire their own animals as well. The most obvious method one can imagine in which to symbolically give anything to a deity is to sacrifice that object.

The relationship between the Irish and their gods also seems to be reflected in the role of the quasi-divine king to his subjects. Raftery summarizes this relationship best:

> … if we can succeed in stripping away the inventions of the early Irish synthetic historians we can discern a sacral kingship with a quasi-divine king, hemmed in by awesome religious taboos and onerous social obligations. He is the personification of his tribe and upon him rests the well-being of his people. Thus he must marry the earth in an elaborate inauguration ceremony to ensure the fertility of the crops and the animals. The enactment of this ceremony, in effect a fertility cult, was in all probability a primary activity carried out at these royal sites – which thus became the ritual and symbolic embodiment of tribal consciousness. (1994: 80-81)

Just as the gods grant cattle and prosperity to the people in return for their devotion and sacrifice, the king gives cattle and protection to his subjects in return for their tribute and respect. Cattle, kingship, and religion are all bound together and dependent on one another.

It is well accepted by archaeologists that the faunal remains of the ritual sites are evidence of ceremonial feasts, not typical food refuse, and there is some tentative evidence suggesting that they were ceremonially sacrificed first. Pollen analyses suggest that a large part of the Irish Iron Age, roughly between 200 ʙᴄ to 200 ᴀᴅ, was a time of severe environmental stress, and as the Irish believed that all natural phenomena were a result of a divine whim, they likely concluded that their gods were unhappy with them. It isn't surprising then, that most of the major Iron Age ritual structures, presumably dedicated to these deities, were built within this period. At the same time, this is the period when most of the evidence of highly elaborate ceremonial feasting took place, which almost certainly added to the stress on the resources.

When we place these activities within the framework of Iron Age Irish belief, though, it begins to make sense, from two different perspectives. The Irish king was symbolically and literally responsible for the fertility and prosperity of the land. If any one person was to be blamed for failed crops and sick cattle, it was the king. He would have been under a great deal of pressure, therefore, to secure his position and demonstrate his power and prestige. One effective method for this, already well-supported in the texts, would have been to host grand feasts with the conspicuous consumption of valued animals. Since the rest of the blame would have gone to the gods, the king and his religious advisors (druids)

may have offered sacrifices as well in an attempt to appease the deities. It stands to reason that the more valuable the object of sacrifice was, the greater the sacrifice it represented. No animal was more valued in Ireland than cattle, who, due to their immense importance in every facet of life, were almost certainly seen as a symbol of the community's abundance, prosperity, and fertility as a whole.

Appendix 1
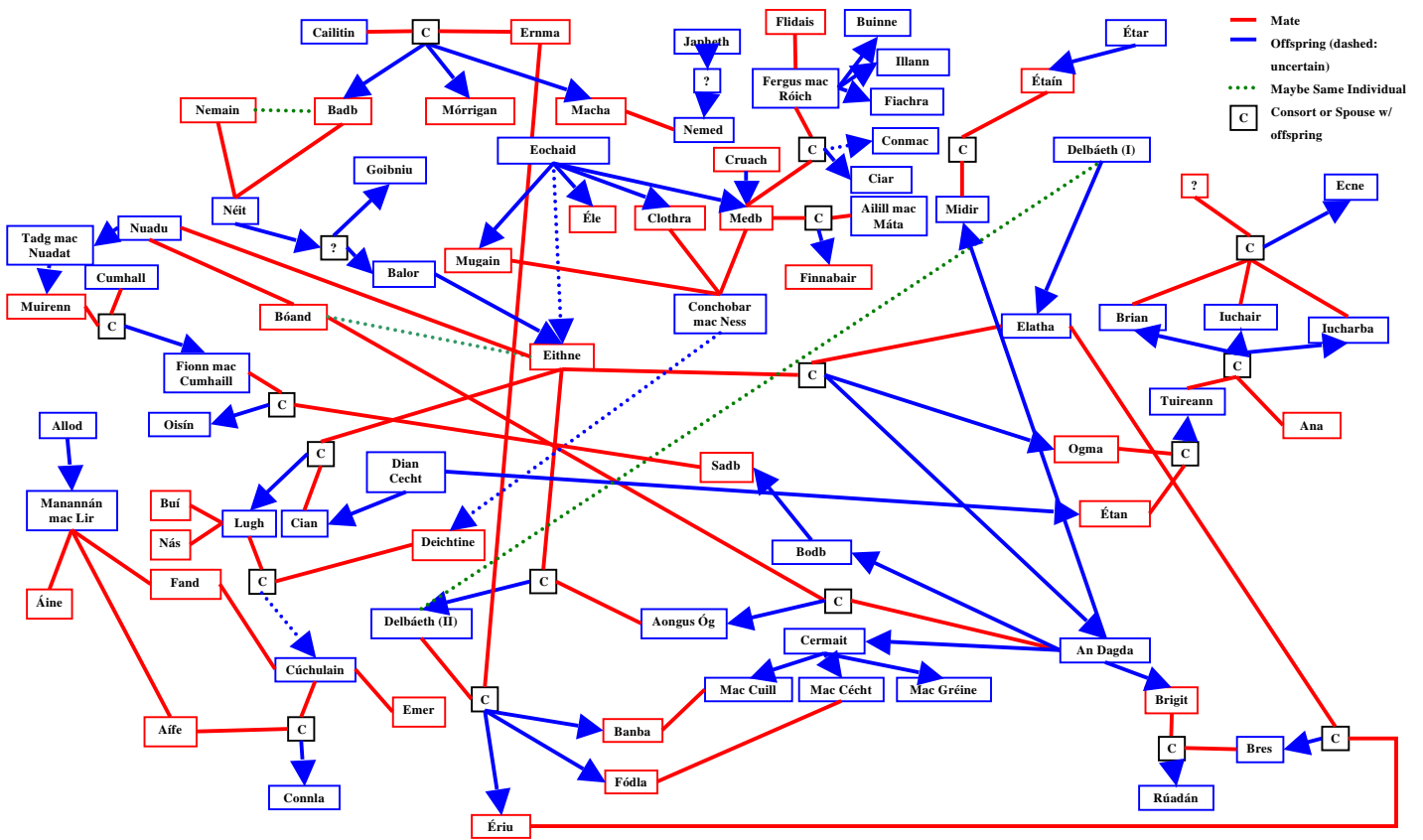
This is only a partial reconstruction of the Irish pantheon's genealogy, which gives an indication of the convoluted nature of the Irish myths. Many figures have more than a single set of parents listed, depending on the text sited, and only the most common parentage is shown here.

Works Cited

Atran, Scott. In Gods We Trust: The Evolutionary Landscape of Religion. New York: Oxford University Press, 2002.

Brenneman Walter L. "Serpents, Cows, and Ladies: Contrasting Symbolism in Irish and Indo-European Cattle-Raiding Myths." History of Religion 28.4 (1989): 340-354.

Caesar, Julius. The Conquest of Gaul. 1952. Trans. S. A. Handford and Jane Gardner. London: Penguin Books, 1982.

Cambrensis, Giraldus. The Historical Works of Giraldus Cambrensis. Ed. Thomas Wright. London: AMS Press, Inc., 1863.

Cooney, Gabriel and Eoin Grogan. "Archaeological Solution to the 'Irish' Problem?" Emania: Bulletin of the Navan Research Group 9 (1991): 33-43.

---. Irish Prehistory: A Social Perspective. Bray, Ireland: Wordwell Ltd., 1994.

Crabtree, Pam J. "Subsistence and Ritual: The Faunal Remains from Dún Ailinne, Co. Kildare, Ireland." Emania: Bulletin of the Navan Research Group 7 (1990): 22-25.

---. "Biological Remains." Johnston and Wailes 157-169.

---. "Ritual Feasting in the Irish Iron Age: Re-Examining the Fauna from Dún Ailinne in Light of Contemporary Archaeological Theory." Behavior Behind Bones. Ed. Sharyn O'Day et al. Durham: 9th ICAZ Conference, 2002.

Dietler, Michael and Brian Hayden, eds. Feasts: Archaeological and Ethnographic Perspectives on Food, Politics, and Power. Washington and London: Smithsonian Institution Press, 2001.

Dio, Cassius. "Dio's Rome." Trans. Herbert Baldwin Foster. Vol. V. The Project Gutenberg. 31 January 2004. 24 June 2008. http://www.gutenberg.org/files/10890/10890-h/10890-h.htm

Gantz, Jeffrey (trans. and introduction). Early Irish Myths and Sagas. London: Penguin Books, 1981.

Fleming, Andrew. "The Genesis of Pastoralism in European Prehistory." World Archaeology 4.2 (1972): 179-191.

Ginnell, Laurence. The Brehon Laws: A Legal Handbook. 1894. Buffalo: Fred B. Rothman Publications, 1999.

Gray, Elizabeth. (ed. and trans.) Cath Maige Tuired. 1983. Ireland: Irish Text Society, 1995.

Gregory, Augusta. Gods and Fighting Men. 1904. New York: Oxford University Press, 1970.

Gwynn, Edward (trans. and ed.). The Metrical Dinshenchas. 5 vols. 1903-1935. Dublin: School of Celtic Studies Dublin Institute for Advanced Studies, 1991.

Hicks, Ronald. "Dún Ailinne's Role in Folklore, Myth, and the Sacred Landscape." Johnston and Wailes 183-194.

Johnston, Susan A. "The Social and Cultural Context of Dún Ailinne." Johnston and Wailes 183-194.

Johnston, Susan A. and Bernard Wailes. Dún Ailinne: Excavations at an Irish Royal Site, 1968-1975. Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology, 2007.

Kelly, Fergus. A Guide To Early Irish Law. 1988. Dublin: Dundalgan Press Ltd., 1998.

Kinsella, Thomas (trans.). The Táin. Oxford: Oxford University Press, 1969.

Lynn, C. J. "The Iron Age Mound in Navan Fort: A Physical Realization of Celtic Religious Beliefs?" Emania: Bulletin of the Navan Research Group 10 (1992): 33-57.

---. "Navan Fort Site C Excavations, May 2000." Emania: Bulletin of the Navan Research Group 19 (2002): 5-18.

Mac Cana, Proinsias. Celtic Mythology. London/New York/Syndey/Toronto: The Hamlyn Publishing Group Limited, 1970.

Macthéni, Muirchú Moccu. Vita Santi Patricii: Life of Saint Patrick. Trans. David Howell. Dublin: Four Courts Press Ltd., 2006.

McCone, Kim. Pagan Past and Christian Present in Early Irish Literature. Maynooth: An Sagart, 1990.

MacKillop, James. A Dictionary of Celtic Mythology. Oxford: Oxford University Press, 1998.

McCormick, Finbar. "Faunal Remains from Navan and Other Late Prehistoric Sites in Ireland." Mallory and Stockman 181-186.

---. "The Animal Bones from Tara." Discovery Programme Reports. 6 (2002): 103-116.

---. "The Animal Bones from Navan Ditch." Emania: Bulletin of the Navan Research Group 18 (2000): 37-38.

---. "Cows, Ringforts, and Origins of Early Christian Ireland." Emania: Bulletin of the Navan Research Group 13 (1995): 33-37.

---. "The Animal Bones from Site B." Waterman and Lynn 117-120.

---.”List of Animal Bones from Site A.” Waterman and Lynn 144-145.

Mallory, J. P. “Excavations of the Navan Ditch.” Emania: Bulletin of the Navan Research Group 18 (2000): 21-35.

---, and Gerard Stockman, eds. Ulidia: Proceedings of the First International Conference on the Ulster Cycle of Tales. Belfast: December Publications, 1994.

Maringer, Johannes. “Priests and Priestesses in Prehistoric Europe.” History of Religion 17.2 (1977): 101-120.

Mela, Pomponius. Pomponius Mela's Description of the World. Trans. F. E. Romer. Ann Arbor: University of Michigan Press, 1998.

Murphy, Eileen. “Report on the Osteological Material from Site C, Navan Fort, Co. Armagh.” Emania: Bulletin of the Navan Research Group 18 (2002) 17-19.

Newman, Conor. "Reflection on the Making of a 'Royal Site' in Early Ireland." World Archaeology 30.1 (1998): 127-41.

---. Tara: An Archaeological Survey. Dublin: Royal Irish Academy, 1997.

---. “Sleeping in Elysium.” Archaeology Ireland. 7:3 (1993): 20-23.

---. “Re: Raffin Fort Question.” E-mail to the author. 5 Aug. 2008.

Ó Catháin, Séamas. The Festival of Brigit. Dublin: DBA Publications Ltd., 1995.

O'Donovan, John, et al. (trans.) Ancient Laws of Ireland: Senchus Mor Vol. I-IV. Dublin: Alexander Thom; London: Longman, Green, Longman, Roberts, and Green, 1865-1879.

Ó hÓgáin, Dáithi. The Sacred Isle: Belief and Religion in Pre-Christian Ireland. Woodbridge: Boydell Press, 1999.

Ó hÓgáin, Dáithi. The Celts: A Chronological History. Cork: Collins Press, 2002.

Olmstead, Garrett S. The Gundestrup Cauldron : Its Archaeological Context, the Style and Iconography of Its Portrayed Motifs, and Their Narration of a Gaulish Version of Táin Bó Cúailnge. Bruxelles: Latomus Revue d'Etudes Latines, 1979.

Patterson, Nerys. Cattle Lords and Clansmen: The Social Structure of Early Ireland. Notre Dame: University of Notre Dame, 1994.

Ptolemy, Claudius. The Geography. Trans. and ed. Edward Luther Stevenson. Mineola, NY: Dover; Toronto: General Pub. Co.; London: Constable, 1991.

Raftery, Barry. "Celtic Iron Age in Ireland: Problems of Origin." Emania: Bulletin of the
    Navan Research Group 9 (1991): 28-32.

---. "Pre- and Protohistoric Ireland: Problems of Continuity and Change." Emania: Bulletin
    of the Navan Research Group 13 (1995): 5-9.

---. Pagan Celtic Ireland: The Enigma of the Irish Iron Age. London: Thames and Hudson,
    Ltd., 1994.

Read, Susan, et al. "Three-Horned Bull." Britannia 17 (1986): 346-347.

Richter, Michael. Medieval Ireland: The Enduring Tradition. New York: St. Martin's Press,
    1995.

Robertson, David A. "The Navan Forty Metre Structure: Some Observations Regarding the
    Social Context of an Iron Age Monument." Emania: Bulletin of the Navan Research
    Group 10 (1992): 25-32.

Roche, Helen. "Late Iron Age Activity at Tara, Co. Meath." Records of Meath
    Archaeological and Historical Society 10 (1999): 18-30.

Stokes, Whitley (trans). "The Prose Tales in the Rennes Dindsechas." Revue Celtíque 15
    (1895): 269-312.

Strabo. The Geography of Strabo. 1923. Trans. Horace Leonard Jones. Vol. II: Bk. IV.
    Cambridge: Harvard University Press, 1969.

Tacitus, Cornelius. Tacitus on Britain and Germany. 1948 Trans. H. Mattingly. Middlesex:
    Penguin Books Ltd., 1960.

Úa Cuilennáin, Cormac. Sanas Cormac: An Old-Irish Glossary. 1913. Ed. Kuno Meyer.
    Felinfach: Llanerch Publishers, 1994.

Wailes, Bernard. "Excavation of the Summit Area." Johnston and Wailes 9-25.

---. "The Irish 'Royal Sites' in History and Archaeology." Cambridge Medieval Celtic Studies
    3 (1982) 1-29.

Waterman, D. M., and C. J. Lynn. Excavations at Navan Fort 1961-1971. Belfast: Northern
    Ireland Archaeological Monographs No. 3, 1997.

Warner, Richard B. "The Navan Archaeological Complex: A Summary." Mallory and
    Stockman 165-170.

---. "Keeping Out the Otherworld: The Internal Ditch at Navan and Other Iron Age
    'Hengiform' Enclosures." Emania: Bulletin of the Navan Research Group 18 (2000) 39-
    44.

---, et al. "Irish Iron Age Sites: A Provisional Map of Absolute Dates." <u>Emania: Bulletin of the Navan Research Group</u> 7 (1990): 46-50.

Weir, David. "The Environment of Emain Macha." Mallory and Stockman 171-179.

Oviposition site choice in a Neotropical treefrog, *Dendropsophus ebraccatus*

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Abstract

An organism's fitness is determined by its ability to produce viable offspring. For animals that lack post-hatching parental care, assessing and discriminating between oviposition sites may increase offspring survival. The Neotropical treefrog, *Dendropsophus ebraccatus*, is the only vertebrate known to be able to lay eggs both aquatically and terrestrially, and can do so in a given night. Laying eggs in water can increase hypoxia and aquatic predation, whereas desiccation and terrestrial predation increase with oviposition on land. *Dendropsophus ebraccatus* therefore provides a unique opportunity to measure adult reproductive choices in response to opposing costs associated with aquatic versus terrestrial reproduction. To test this, I 1) quantified aquatic predation risk in a natural setting, 2) tested whether *D. ebraccatus* demonstrates oviposition site discrimination in response to an aquatic egg predator, and 3) measured the relative importance of egg desiccation and aquatic predation risk on *D. ebraccatus* oviposition decisions. Aquatic egg predation risk is high in nature and the presence of an aquatic egg predator altered reproductive mode choices by *D. ebraccatus*. Not only did *D. ebraccatus* discriminate against pools with aquatic egg predators, but aquatic egg predation risk outweighed terrestrial egg desiccation risk, causing frogs to lay eggs out of water even in unshaded habitats where desiccation risk is high.

Introduction

Most animals lack parental care. Parents choose a suitable environment for oviposition and lay eggs, at which point parental investment is completed and offspring are left to develop on their own. Oviposition site choice is therefore an extremely important decision for parents and selection should act strongly to shape oviposition decisions. Laying eggs in a suboptimal habitat has strong survival costs to offspring and parents should be able to correctly discriminate potential risks to their offspring (Resatarits 1996).

Multiple invertebrate and vertebrate animals, such as mosquitoes, phantom midges, aquatic beetles and amphibians, can discriminate between oviposition site based on both biotic and abiotic factors (Resatarits 1996, Kiesecker and Skelly 2000). For example, backswimmers (*Notonecta maculata*) and mosquitoes (*Culiseta longiareolata*) strongly avoid ovipositing in pools containing

predators (Arav and Blaustein 2006). Several amphibians, such as North American bullfrogs (*Rana catesbeiana*) and wood frogs (*R. sylvatica*), choose to oviposit eggs in warmer microclimates, which in turn increases the rate of development of eggs and tadpoles (Howard 1978, Seale 1982). Several other amphibian species preferentially avoid laying eggs in ponds containing competitors or pathogens (Resatarits and Wilbur 1989, Kiesecker and Skelly 2000). Such decisions as these can increase the likeliness of offspring survival.

The most important factor affecting recruitment in amphibian populations is the number of metamorphosing young (Berven 1990). Therefore, predation on eggs and tadpoles has a direct influence on anuran population sizes. When predators such as fish become established in temporary ponds, anuran reproductive success can drop to zero (Resatarits 1996). For certain species, such as gray treefrogs (*Hyla chrysoscelis*), complete reproductive failure often results from ovipositing in ponds containing fish (Resetarits and Wilbur 1989). Many amphibians, such as gray treefrogs, wood frogs, streamside salamanders (*Ambystoma barbouri*), American toads (*Bufo americanus*), pickeral frogs (*R. palustris*), pinewood treefrogs (*H. femoralis*), and treehole breeding frogs (*Phrynobatrachus guineensis*) avoid ovipositing in ponds with predators (Resatarits and Wilbur 1989, Resatarits 1996, Egan and Paton 2004, Hopey and Petranka 1994, Kats and Sih 1992, Holomuzki 1995, Reiger et al. 2004, Rudolf and Rodel 2005). However, some anurans, such as common frogs (*R. temporaria*), are not able to discern between oviposition sites with and without predators (Laurila and Aho, 1997). This may be true for many other anurans that don't have the capability to assess their environment or for anurans whose offspring are not strongly affected by predation.

The hourglass treefrog (*Dendropsophus ebraccatus*) has a unique advantage in choosing oviposition sites. This Neotropical treefrog is the first vertebrate known to exhibit reproductive mode plasticity; individual females can choose to oviposit their eggs either aquatically or terrestrially and can change reproductive mode during a single night (Touchon and Warkentin 2008a).

Dendropsophus ebraccatus lays eggs aquatically when in sunny environments where desiccation risk is high for terrestrial eggs (Touchon and Warkentin 2008a). However, aquatic eggs may suffer hypoxia, and thus, *D. ebraccatus* lays eggs terrestrially in shaded environments where desiccation risk is lower (Touchon and Warkentin 2008a). It is unknown whether factors other than shade influence their oviposition site choice. Since eggs can be laid above or below water, there may be more abiotic and biotic environmental factors that affect oviposition decisions. For example, temperature, vegetation, and predators may all vary in different ways in water or on land, and may influence oviposition site choices by females.

I measured aquatic egg predation and the ability of mating *D. ebraccatus* pairs to assess terrestrial and aquatic egg mortality risks. First, I quantified the risk of predation on aquatic egg masses in a natural setting. I then measured the ability of *D. ebraccatus* pairs to discriminate oviposition sites with and without aquatic egg predators. Lastly, I measured the oviposition site choices of *D. ebraccatus* pairs placed in unshaded mesocosms with and without aquatic egg predators. I hypothesized that 1) predation upon aquatic egg masses would be high and developmental costs to eggs would be low, 2) *D. ebraccatus* adults would choose to lay eggs in predator-free pools when given the option, and 3) pairs in unshaded pools would lay eggs aquatically when predators were absent, but would lay terrestrial eggs when predators were present.

Materials and Methods

Dendropsophus ebraccatus is a Neotropical treefrog known to lay eggs both terrestrially and aquatically around permanent and semi-permanent ponds (Touchon and Warkentin 2008a). At my field site, breeding occurs during the rainy season from May through November. Females lay 100–340 eggs in a given night, partitioned into 2–10 discrete egg masses (mean = 242 eggs/female; J. Touchon, unpublished data).

There are many potential aquatic egg predators in the ponds where *D. ebraccatus* breeds. Conspecific and heterospecific (e.g. *Leptodactylus pentadactylus*) tadpoles and fish are known to eat aquatic *D. ebraccatus* eggs (J. Touchon, pers. comm.). *Astyanax ruberrimus* (Characidae) is a diurnal fish that predates on both *D. ebraccatus* eggs and larvae (Touchon and Warkentin 2008b). Chemical cues from *A. ruberrimus* predators induce morphological and color changes in *D. ebraccatus* tadpoles (Touchon and Warkentin 2008b).

I studied *D. ebraccatus* at two ponds near the Smithsonian Tropical Research Institute field station in Gamboa, Panama. The first pond, Quarry Pond, is where aquatic oviposition in *D. ebraccatus* was first discovered (Touchon & Warkentin 2008a). Quarry Pond is large, has little overhanging forest canopy, and has a layer of floating aquatic vegetation (*Salvinia*) which frogs use for laying aquatic egg masses. The second pond, Experimental Pond, is a man-made pond that lacks fish predators. It is surrounded by vegetation, with the rainforest edge approximately four meters away on one side and an open field on the other.

Natural Aquatic Predation Risks

To establish if predation is a threat to aquatic *D. ebraccatus* eggs, I exposed eggs to aquatic predators in a natural setting. I collected nine amplectant *D. ebraccatus* pairs at Quarry Pond on 9 and 12 August 2008. I placed pairs in plastic bags overnight in an open-air laboratory and allowed them to breed (Touchon and Warkentin 2008b). Pairs laid eggs by adhering them to the inside of the bag. All pairs were returned to Quarry Pond the following morning. The morning after oviposition I transferred eggs from the plastic bag to *Salvinia* in a manner consistent with *D. ebraccatus'* natural aquatic egg mass placement. I created 40 replicated egg masses of 50 eggs each. I placed aquatic egg masses on *Salvinia* in Quarry Pond ca. 10 hours after oviposition and monitored them for evidence of predation. To enable differentiation of predation mortality from hypoxia or our handling and

manipulation, I placed half of the egg masses inside predator exclosures. *Salvinia* plants (containing egg masses) were marked with flagging tape to ensure correct identification. After 36 hours, all egg masses were collected and returned to the lab. I recorded the number of viable and dead eggs remaining on the *Salvinia*, as well as the number of eggs missing due to predation.

Oviposition Site Discrimination Tests

To test the ability of *D. ebraccatus* adults to discriminate ponds with and without predators, I conducted oviposition site choice trials in mesocosms located at Experimental Pond. I constructed six 1.3 m^3 mesh cages, each containing two 60L pools filled with aged tap water and emergent vegetation common to *D. ebraccatus* breeding ponds in Gamboa. I placed mesocosms under heavy forest canopy to promote terrestrial oviposition (Touchon and Warkentin 2008a). Two *A. ruberrimus* were randomly placed in one of the two tubs for all six mesocosms. The range of size for each *A. ruberrimus* in each pair was 48-69 mm. To create chemical cues which may indicate the presence of predators to adults, predators were fed 10 recently hatched *D. ebraccatus* tadpoles at least 24h before oviposition site choice trials began. Two predators died during the experiment and were replaced.

Between 15 and 21 June 2008 I tested oviposition site discrimination of 21 mating pairs of *D. ebraccatus* caught from Experimental Pond. I placed pairs in mesocosms between 2230 and 2300 h, randomly starting them on either the predator or predator-free pools. I left pairs to breed undisturbed overnight. The following morning, I released pairs from mesocosms and recorded the number of eggs laid in the predator or predator-free pools.

Aquatic/Terrestrial Oviposition Site Choice Tests

To measure the oviposition site choices of *D. ebraccatus* pairs facing conflicting risks of aquatic egg predation and terrestrial egg desiccation, I conducted oviposition site choice trials in

unshaded mesocosms with and without predators. I constructed six 1.3 m^3 mesocosms, each with a single pond (1.3 m diameter x 0.25 m tall). All mesocosms were placed in an unshaded environment, where *D. ebraccatus* prefer to lay eggs aquatically (Touchon and Warkentin 2008a). I filled ponds with aged tap water, four common emergent plants, and a layer of floating *Salvinia* vegetation (Touchon and Warkentin 2008a). Four *A. ruberrimus* were randomly placed into three mesocosms, while the other three were left as controls (mean total length 29-33 mm). To create chemical cues in predator pools, predator ponds were seeded with 25 recently hatched *D. ebraccatus* tadpoles 24 h before beginning oviposition site choice tests. Predators were also fed ca. 55 eggs each every 2-3 days throughout the experiment.

Between 26 July and 16 August I tested oviposition site choices of 20 mating pairs of *D. ebraccatus*, caught from Experimental Pond (located ca. 30 m away from cages). I randomly placed pairs in mesocosms between 2230 and 2300 h. Pairs were left undisturbed overnight to breed, and released the following morning. I recorded the location of egg masses (aquatic, terrestrial, or on the water surface) and number of eggs within the masses for each clutch. Masses were recorded as aquatic if each egg was submerged or in contact with the water. Masses were considered to be on the water surface if some eggs were submerged or in contact with the water, but others were completely out of the water. The number of eggs below and above the water was recorded for each mass at the water's surface. A terrestrial mass was defined as any mass in which all of the eggs were completely out of the water.

Statistics Analyses

All statistical analyses were conducted in R version 2.7.1. (R Development Core Team 2007). Aquatic predation rates were modeled using a generalized linear model (GLM) with underlying quasibinomial distribution and logit link function. A quasibinomial distribution accounts for overdispersion of the data (Pinheiro & Bates 2000). I tested for both treatment and block effects

and an interaction effect. Neither the block effect nor the interaction were significant and both were

left out of the final model. I used a χ^2 test to quantify if eggs were laid non-randomly in oviposition

site discrimination tests. I modeled aquatic and terrestrial oviposition site choices using a

multinomial logistic regression (MLM). I tested for block effects of date and pair of frogs, and

interaction effects, and compared models with Akeike's Information Criterion (AIC). Date never

had a significant effect and was left out of the final model.

Results

Natural Aquatic Predation Risks

After 36 hours in Quarry Pond, egg masses exposed to predators had 43.4% more eggs

missing than egg masses in predator exclosures (Figure 1; GLM, $F_{1,37} = 22.39$, $P < 0.00001$).
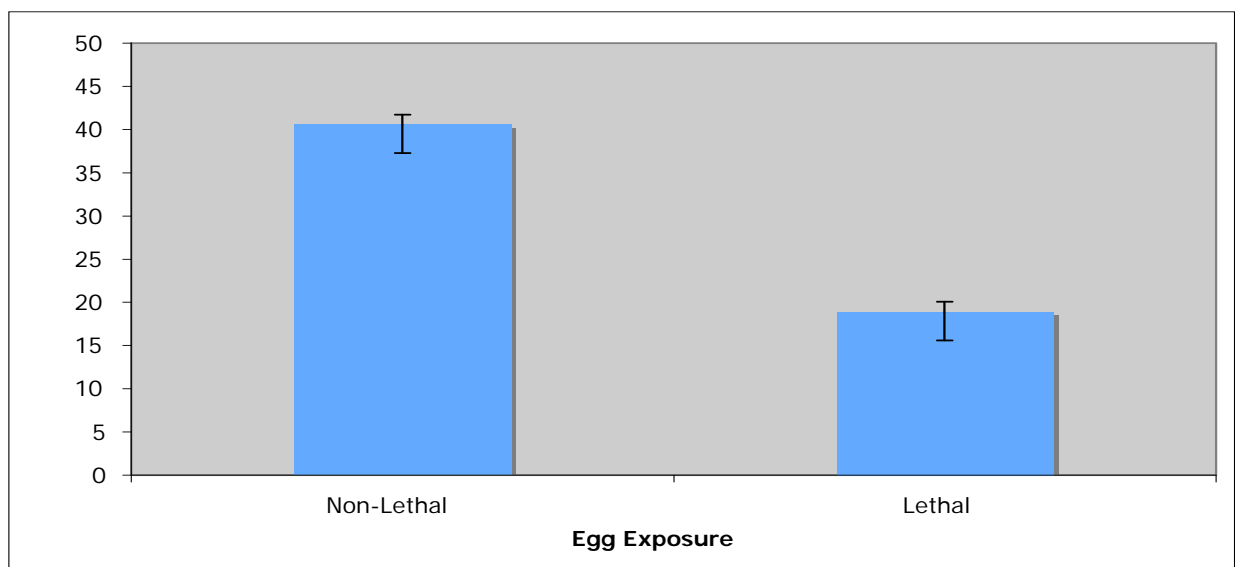
Figure 1. Number of *Dendropsophus ebraccatus* eggs remaining in egg masses placed in Quarry Pond and exposed to predators or in non-lethal predator exclosures. More eggs were missing from egg masses exposed to predators than in egg masses within predator exclosures. ($P < 0.00001$, N = 20).

The average number of dead eggs did not significantly differ between treatments (non-lethal = 6.2 ± 1.13; lethal = 4.6 ± 1.69).

Oviposition Site Discrimination Tests

When given a choice between ovipositing in predator versus predator-free pools, *D. ebraccatus* pairs laid eggs non-randomly; pairs oviposited an average of 197.33 eggs over the control pools and 111.86 eggs over the predator pools (Figure 2; $\chi^2 = 2379.47$, $P < 0.00001$).
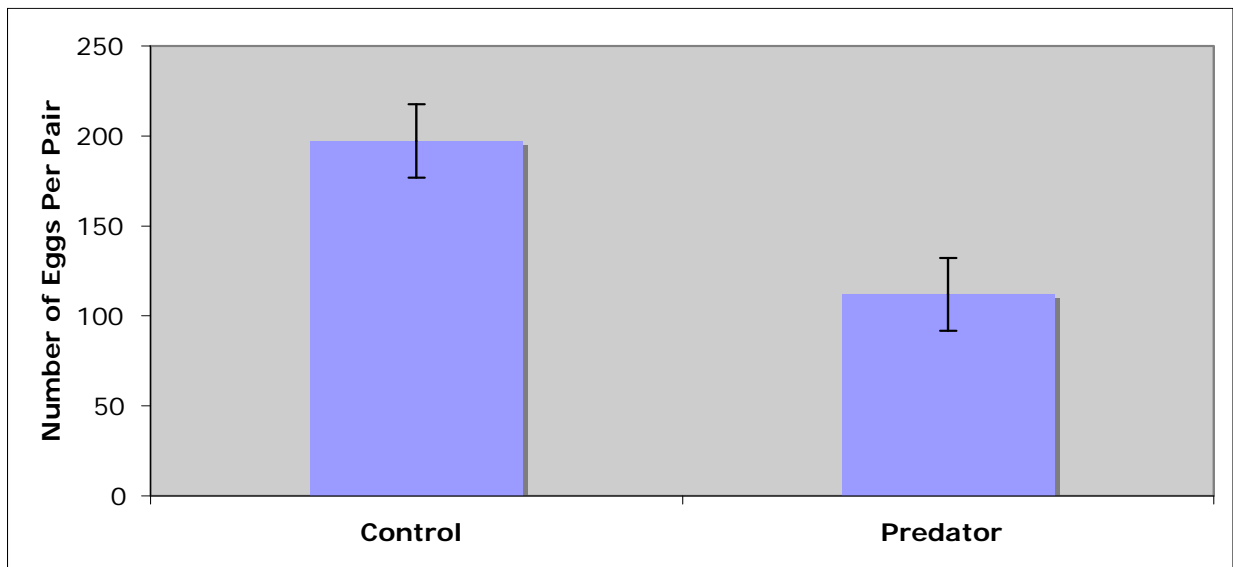

Figure 2. The average number of eggs laid by *Dendropsophus ebraccatus* pairs over control and predator pools. Pairs laid more eggs predator-free control pools than over pool with predators ($P < 0.00001$, N = 21)

Aquatic/Terrestrial Oviposition Site Choice Tests

There was a significant effect of predator presence on aquatic versus terrestrial oviposition; in pools containing predators, pairs laid more terrestrial eggs, whereas in predator-free pools more aquatic eggs were laid (Figure 3; MLM, $F_{2,89} = 25.69$, $P < 0.00001$).
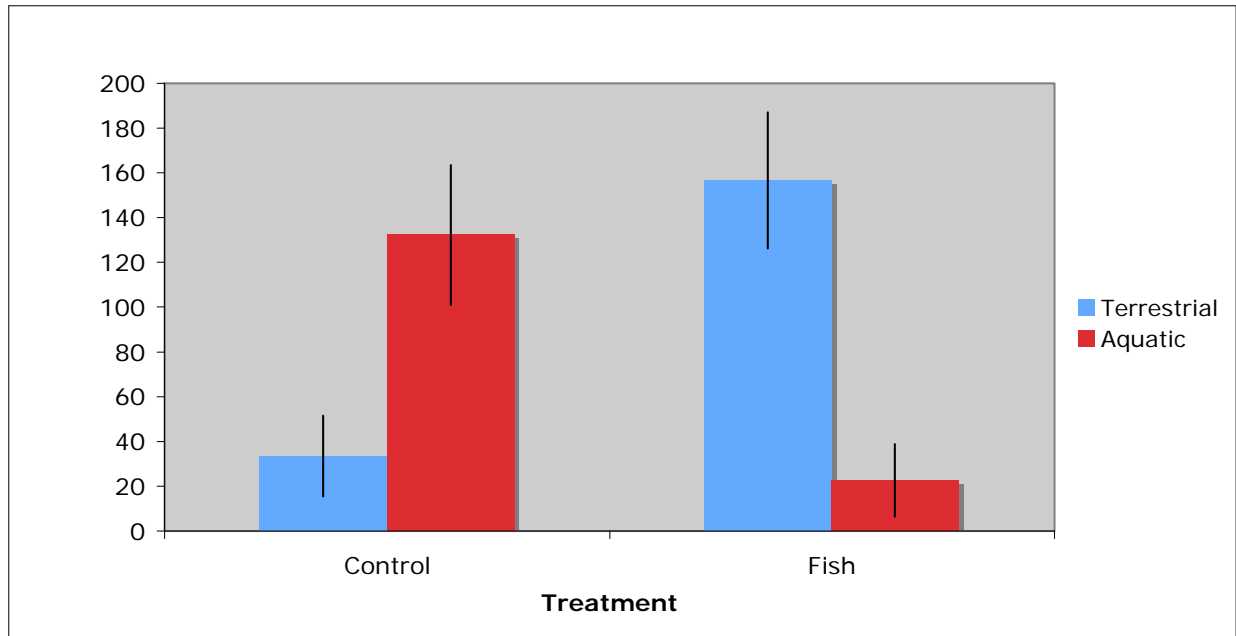
Figure 3. The average number of *Dendropsophus ebraccatus* eggs per pair laid terrestrially and aquatically in predator pools and control pools. Pairs chose to lay more aquatic eggs in pools without predators, whereas the presence of *Astyanax ruberrimus* in the water caused frogs to lay more eggs terrestrially (*P* < 0.00001, N = 20).

There was a significant effect of pair on the model as well ($F_{2,89}$ = 11.56, *P* = 0.00309). An ANOVA test showed that there was no significant difference between the number of eggs laid per pair in predator cages or predator-free cages ($F_{18,24}$ = 2.095, *P* > 0.165).

Discussion

I have demonstrated that egg predation is a realistic threat to aquatic *D. ebraccatus* egg masses and that adults can not only detect aquatic predators, but alter oviposition behavior in response to aquatic egg predation risk. Gamete investment and oviposition site selection are the only forms of parental care demonstrated in most organisms (Howard 1978). Oviposition site choice strongly affects the reproductive success of pond-breeding amphibians (Kiesecker and Skelly 2000). Therefore, the ability to alter oviposition behavior in response to multiple factors, such as sun exposure and predator presence, can greatly increase parental fitness

Aquatic *D. ebraccatus* egg masses exposed to predators had significantly more eggs missing than egg masses protected from predation. Although a small percentage of eggs were missing from control egg masses, over 40% more eggs were missing from masses exposed to aquatic predation. There was no difference between the number of dead eggs in exposed masses versus controls (6-14% of egg mortality), indicating that hypoxia was similar in both treatments. There was, however, a difference between dead eggs in the two blocks of experiments. This was not likely due to handling differences, since both blocks were set up in the same manner. Oxygen levels, however, may have fluctuated between blocks, perhaps because of rainfall or water temperature (Benson and Krause 1984). Terrestrial predation may have occurred to a small degree, as control cages did have some eggs missing out of their masses. We did not observe which terrestrial or aquatic predators were responsible for eating *D. ebraccatus* eggs, but likely terrestrial predators are fishing spiders (J. Worley, pers. obs.) and *A. ruberrimus* or conspecific tadpoles are good aquatic egg predators (J. Touchon, pers. comm.).

Many organisms have demonstrated the ability to discriminate between oviposition sites, increasing offspring survival rates (Arav and Blaustein 2006, Egan and Paton 2004, Holomuzki 1995, Hopey and Petranka 1994, Howard 1978, Kats and Sih 1992, Kiesecker and Skelly 2000, Reiger et al. 2004, Resatarits 1996, Resatarits and Wilbur 1989, Rudolf and Rodel 2005, Seale 1982, Touchon and Warkentin 2008a) Fish are strong predators, capable of decimating anuran larvae populations (Resetarits 1996). Natural selection should favor behavior that minimizes larval contact with predators (Kats and Sih 1992). Therefore, ovipositing in a predator-free area should be selected for. My oviposition site choice tests demonstrated that *D. ebraccatus* can discriminate between oviposition sites with and without predators. The predator pools used in this experiment contained two fish, although there were times when one fish would die, temporarily leaving a single fish in the pools. Rieger et al. (2004) found that a single fish has much less of an effect than two or

more fish on the strength of anuran oviposition site discrimination. This is probably due to less

emission of predator chemical cues from a single fish. The strength of discrimination might be

intensified if more predators were used. The results from this experiment show that even with

minimal amounts of predators present, *D. ebraccatus* can still discriminate between pools.

Desiccation is a serious risk for terrestrial *D. ebraccatus* eggs and sunny environments cause

frogs to lay eggs aquatically instead of terrestrially (Touchon and Warkentin 2008a). *Dendropsophus*

ebraccatus oviposit around 80% of their eggs aquatically in sunny environments (Touchon and

Warkentin 2008a). This is consistent with my results, where frogs in control mesocosms also laid

80% of their eggs aquatically. There was no difference in the total number of eggs laid by pairs in

predator or control mesocosms. Thus, the variation in aquatic/terrestrial oviposition site choices

between the two treatments was not due to predators eating the aquatic eggs before I collected them

from the cages. Along with treatment, pair was a significant predictor of where the eggs were

oviposited, indicating that there is variation between pairs' oviposition decisions. Some pairs in

predator cages oviposited 100% of their eggs terrestrially while some oviposited masses in both

aquatic and terrestrial environments. The variation could be due to many factors including weather,

the presence of terrestrial predators, or variation in the ability of different frogs to assess their

environment.

I have demonstrated that *D. ebraccatus* adults can assess abiotic and biotic egg-stage risks in

both aquatic and terrestrial environments simultaneously during a single night and use this

information to decide between aquatic and terrestrial reproductive modes. Like most animals, *D.*

ebraccatus lacks parental care; oviposition site choices are therefore are critical for increasing offspring

survival. The cues that *D. ebraccatus* use to evaluate oviposition sites are currently unknown. Future

studies should separate likely environmental cues, such as ambient starlight and air or water

temperature, which may indicate the presence of shade, or olfactory or chemical cues that may

denote the presence of egg predators. Understanding how *D. ebraccatus* assess their environment will offer insight into how animals perceive the world around them and evaluate their surroundings.

Acknowledgements:

Literature Cited:

Arav D, and Blaustein L (2006). Effects of pool depth and risk of predation on oviposition and habitat selection by temporary pool dipterans. *Journal of Medical Entomology* 43(3)493-497.

Berven KA (1990). Factors affecting population fluctuations in larval and adult stages of the wood frog (*Rana sylvatica*). *Ecology* 71(4):1599-1608.

Benson BB and Krause Jr. (1984). The concentration and isotopic fractionation of oxygen dissolved in freshwater and seawater in equilibrium with the atmosphere. Limnology and Oceanography 29(3):620-632.

Egan RS, Paton PWC (2004). Within pond parameters affecting oviposition by wood frogs and spotted salamanders. *WETLANDS* 24(1):1-13.

Holomuzki JR (1995). Oviposition sites and fish-deterrent mechanisms of two stream anurans. *Copeia* 1995(3):607-615.

Hopey ME, and Petranka JW (1994). Restriction of wood frogs to fish-free habitats: How important is adult choice? *Copeia* 1994(4):1023-1025.

Howard RD (1978). The influence of male-defended oviposition sites in early embryo mortality in bullfrogs. *Ecology* 59(4):789-798.

Kats LB, and Sih A (1992). Oviposition site selection and avoidance of fish be streamside salamanders (*Ambystoma barbouri*). *Copeia* 1992(2):468-473.

Kiesecker JM, Skelly DK (2000). Choice of oviposition site by gray treefrogs: The role of potential parasitic infection. *Ecology* 81(10):2939-2943.

Laurila A, Aho T (1997). Do female common frogs choose their breeding habitat to avoid predation on tadpoles? *Oikos* 78(3):585-591.

Pinheiro, J.C. & Bates, D.M. (2000) *Mixed Effects Models in S and S-Plus* Springer, New York, NY.

R Development Core Team (2007). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. ISBN 3-900051-07-0, URL http://www.R-project.org.

Resatarits Jr. WJ (1996). Oviposition site choice and life history evolution. *American Zoologists* 36(2):205-215.

Resatarits Jr. WJ, and Wilbur HM (1989). Choice of oviposition site by Hyla chrysoscelis: Role of predators and competitors. *Ecology* 70(1):220-228.

Rieger, JF, Binckley CA, and Resetarits Jr. WJ (2004). Larval performance and oviposition site preference along a predation gradient. *Ecology* 85(8): 2094-2099.

Rudolf VHW, Rodel M-O (2005). Oviposition site selection in a complex and variable environment: The role of habitat quality and conspecific cues. *Oecologia* 142(2):316-325.

Seale DB (1982). Physical factors influencing oviposition by the woodfrog, *Rana sylvatica*, in Pennsylvania. *Copeia* 1982(3):627-635,

Touchon JC, and Warkentin KM (2008a). Reproductive mode plasticity: Aquatic and terrestrial oviposition in a treefrog. *Proceedings of the National Academy of Sciences* 105(21):7495-7499.

Touchon JC, and Warkentin KM (2008b). Fish and dragonfly nymph predators induce opposite shifts in color and morphology. *Oikos* 117(4):634-640.