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Welcome to the inaugural issue of *Y Ddraig Goch: An Interdisciplinary Honors Journal*

Two years ago, Honors Philosophy student Omar Obregon-Cuevas approached me about starting an Honors journal. My immediate response was to say “Yes!” He was soon joined by Imani Floyd, an Honors Psychology student as a co-founding editor. Both were bold in trying something new. Bravo!

My response to most anything anyone requests is to say ‘yes!’ Why do this? Because it’s a way of helping others grow.

You see, people learn, develop, and grow by doing things before they know how to do them. It’s how we learned to speak (we babbled our way into speaking). Someone began relating to the non-speaker (baby-toddler) as if they could speak. The interplay between the person trying a new thing and those around them encouraging them on, is how we, as human beings, learn just about everything.

This methodological approach, an open and affirming posture, is what we in the Honors College cultivate. It requires intentionality and practice. Mostly, it requires paying attention to what others are interested in doing. The possibilities in this creative cultural approach to learning and development are endless. *Y Ddraig Goch: An Interdisciplinary Honors Journal* is a product of this approach and students’ very hard work, with faculty support. Bravo to all! And a special bravo to Destiny Brooks, our inaugural editor. Keep goin’ Destiny … you’re doing great!

Enjoy!

Omar H. Ali, Ph.D.
Dean and Professor, Lloyd International Honors College
It is a great honor to be a part of this journal and contribute my knowledge and skills to the completion of this very first issue of *Y Ddraig Goch: An Interdisciplinary Honors Journal*. As an English major with a double minor in Philosophy and Classical Studies, reading, writing and learning have always been three of my greatest passions. I have learned so much while working on this journal, from reading the submitted papers, to advancing my editing knowledge. Before working on this journal, I never gave much thought to how important consistency is with formatting. There is a plethora of little things that will stand out if they are not consistent throughout the entire journal, such as margins, font, font size and just keeping the page numbers in order as things are taken out and added in. My position as editor is no small task; it requires lots of time and effort as well as a keen eye to detect any inconsistencies. I am truly grateful for all that I have learned and for getting to be a part of such a wonderful team that has encouraged and supported me throughout this process. We have all worked long hours and given our greatest efforts to make this first issue the best that it can be. I would like to thank all the amazing students and staff that have made this journal possible. I would also like to give a very special shout out to Margaret Patton and Dr. Omar Ali. Margaret graciously and enthusiastically took on the job as our copyeditor and always greeted me with a smile. Dr. Omar Ali worked as my mentor and taught me everything I know about editing and always created a lively environment, free from stress and beaming with support and motivation. This is very much in the spirit of the Honors College, which helps to support student development by believing that every student can successfully accomplish anything they put their minds to even before they know how to do it. Lastly, I would like to welcome you to this first issue of *Y Ddraig Goch: An Interdisciplinary Honors Journal*. I hope you all find it as fun and interesting as I did while compiling and producing it.

Destiny M. Brooks, Editor
Evaluating Postpartum Mood and Anxiety Disorder Awareness Among Healthcare Professionals

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Abstract

Although pregnancy and motherhood are often viewed in society as joyous times, many people may not realize that 1 in 7 women have difficulty sleeping, and suffer from feelings of sadness, anxiety, worthlessness, and isolation during pregnancy or after giving birth. The stigma that exists regarding Perinatal Mood and Anxiety Disorders (PMADs) often prevents mothers from following through on treatments such as therapy, psychiatric medications, or even simply asking for help. The North Carolina Perinatal Association (NCPA) has recognized the need to increase education in the healthcare community about PMAD and has taken the initiative to spread awareness by circulating the documentary, Dark Side of the Full Moon (DSoFM) with viewings for health care professionals across North Carolina. A secondary analysis of quantitative and qualitative data was conducted from the voluntarily completed and de-identified evaluations submitted at each viewing over one year. Common themes were requests for referral resources, the need for more education of staff and communities about PMADs, and increased awareness about the importance of
screening and getting treatment. In response, efforts were made to identify and publicize regional resources for professionals and the community through the NCPA, and expand the documentary viewings to the general public.¹

Pregnancy and motherhood are often viewed in society as joyous times, yet this façade of joy and merriment masks the little-known reality that one in seven women have difficulty sleeping, and suffer from cumbersome feelings of sadness, feelings of worthlessness, and isolation during pregnancy or even months after giving birth (American Psychological Association, n.d.). During pregnancy, it is natural for women to experience short-lived, mild mood changes such as fatigue, irritability, and anxiety during a defined period of two to three weeks, also termed as the Baby Blues. However, if these mood changes continue to persist longer than three weeks and interfere with a woman’s ability to function, if not recognized early, they can consequently affect a woman’s ability to bond with her infant, interact with her significant other, and resume her pre-pregnancy lifestyle (Kripke, 2014). These mild mood changes women encounter during the perinatal period, the beginning of pregnancy to the first year after a baby is born, unavoidably increase a woman’s vulnerability to experience psychiatric disorders. The social stigma that is attached to maternal mental health problems prevents mothers from seeking help, leaving them feeling isolated and alone. Primary prevention efforts like providing mothers, partners, and health professionals with current and useful information must be taken to reduce the social stigma.

It is no secret that the healthcare system prioritizes physical health over mental health. With mental health affecting people at every stage of life – from childhood, adolescence, adulthood, and even motherhood – a mother’s mental health is the cornerstone of providing quality care to the child and has long-term effects on the child’s development. With as many as 1.3 million women suffering from a maternal mental health

¹ The author thanks the individuals who contributed to the study for their time and assistance.
complication in the United States alone (Postpartum Progress, 2014), Associate Professor at the University of North Carolina at Chapel Hill School of Social Work, Betsy Bledsoe reports, “The problem is that mothers are rarely screened for maternal depression consistently across the perinatal period and are even less likely to be screened for depression later in motherhood,” (2013). While many are familiar with the clinical complication, Postpartum Depression (PPD), many do not realize that PPD is actually just one in the group of disorders that can affect women during the perinatal period. Perinatal Mood and Anxiety Disorders (PMADs) is the umbrella term used that encompasses the broad spectrum of disorders that can appear any time during the perinatal period. These disorders include PPD, anxiety or panic disorder, obsessive-compulsive disorder, post-traumatic stress disorder, bipolar disorder, and in extreme cases, psychosis.

With Smith’s study (2013) claiming that PMADs are the most underdiagnosed, underreported, and undertreated complication of childbirth, the largest issue found with PMADs is symptom recognition (p. 80). Not only are PMAD symptoms difficult for healthcare professionals to detect, they are even more difficult for childbearing mothers to recognize. In the effort to minimize the negative effects maternal mental health problems can have on pregnant or postpartum women, infant, and families, early interventions at the primary, secondary, and tertiary levels must be initiated. By providing more public education, performing timely assessments, utilizing effective screening tools such as the Edinburgh Postnatal Depression Scale (EPDS), and making referrals to accessible treatment in the clinical setting, these interventions provide mothers [and their partners] the opportunity to address their mental health concerns.

**Background**

Depression is the leading cause of disability among childbearing women (Postpartum Support, 2014). Utilizing the Centers for Disease Control’s (CDC) Pregnancy Risk Assessment Monitoring System Statistics (PRAMStat) report to assess the prevalence of PPD in North Carolina, the latest results from 2008 correspond with the American
Psychological Association’s statistic that one in seven women experience more significant symptoms of depression and anxiety. Achieving a 70% response rate out of a sample size of 1356 people, 14.2% of the respondents reported experiencing frequent postpartum depressive symptoms. Likewise, the remaining 85.8% respondents denied experiencing any frequent depressive symptoms.

**Measure Definitions**

- \( \% = \text{Percent} \)
- \( \text{CI} = 95\% \text{ Confidence Interval for Percent} \)
- \( \text{N} = \text{Sample Size} \)

![Graph showing PRAMS Data for NC 2008](image)

**FIGURE 1. PRAMS Data for NC 2008**

The World Health Organization (2017) discloses that maternal mental health problems are considered a major global public health challenge. Diving into the unseen world of maternal mental health, the North Carolina Perinatal Association (NCPA) has identified that the best approach to increasing PMAD awareness is to start educating the stakeholders in healthcare. In an effort to educate and reach out to a large number of stakeholders in the most cost-effective way possible, the NCPA had initiated a large-scale, cost-effective education project that uses the documentary, *Dark Side of the Full Moon (DSoFM)*. Purchasing a copy of the documentary, a no-cost loan program was developed and advertised
to perinatal nurses and educators across the state beginning in November 2015. Circulating the documentary in settings such as hospitals, health departments, educational institutions, and Women, Infants, and Children (WIC) offices across North Carolina, DSoFM reveals the realities of maternal mental health and addresses the disconnects within the healthcare community to effectively screen, refer, and treat the countless women who suffer in silence. Serving the purpose to shed light on the issue that maternal mental health is a growing public concern, DSoFM also ignites the spark of motivating stakeholders to engage in the discussion on how they can assist in improving the lives of their pregnant and postpartum patients.

Surpassing the initial goal of 1,000 viewers, the NCPA reported that 1,613 attendees have viewed the documentary between November 2015 and December 2016. Taking hold of the opportunity of having healthcare professionals gathered together to view DSoFM, at the conclusion of each viewing session an NCPA-approved and de-identified program evaluation was provided to each attendee. A secondary analysis of the evaluation data was later conducted from the program evaluations collected from the viewings held in 2016 to determine the effectiveness of the project and provide the NCPA with a reflection of the current state of PMAD awareness among healthcare professionals in North Carolina. In addition, the feedback provided also assisted the NCPA in identifying the appropriate support services needed to further meet the needs of women and their families.

Methods
This secondary analysis study was submitted and reviewed by the University of North Carolina at Greensboro’s (UNCG) Institutional Review Board (IRB). The UNCG IRB had determined that the study submission did not constitute human subjects research as defined under federal regulations [45 CFR 46.102 (d or f)] and did not require IRB approval.

With the NCPA utilizing the DSoFM as an education intervention, the documentary has been circulating across North Carolina with viewings for healthcare professionals. The NCPA has purposefully been
generating and engaging the stakeholders in healthcare to participate in the conversation about maternal mental health all across the state. Of the 1,613 attendees that have viewed the documentary in the events held in November 2015 to December 2016, attendees included a wide range of stakeholders varying from all levels including physicians, nurses, social workers, nutritionists, and representatives from public health departments. At the end of each viewing, attendees were provided the opportunity to share their concerns, suggestions, and ideas about the documentary and event by voluntarily completing an NCPA-approved and de-identified program evaluation. Containing a mix of close-ended and open-ended questions, the specific aims of the program evaluations were to: 1) assess the level of PMAD awareness among healthcare professionals across North Carolina; 2) determine the effectiveness of the documentary in educating the healthcare community about PMADs; 3) identify changes to practice as a result of enhanced PMAD awareness; and 4) identify what the NCPA needs to do for the North Carolina regions and their appropriate healthcare providers to further meet the needs of women and their families.

Focusing primarily on the program evaluation data collected in 2016, a total of 574 program evaluations were obtained and analyzed. The close-ended question portion of the program evaluations asked respondents to rate the degree to which they agree or disagree with the four statements on the five-point Likert scale. As for the narrative portion of the program evaluations, respondents were asked three open-ended questions pertaining to the overall documentary and event presentation, knowledge gained from the experience, and the services currently offered for pregnant and postpartum mothers in their region of North Carolina.

Results

Each of the four closed-ended questions on the program evaluation asked respondents to rate the degree to which they agree or disagree with the statements on a five-point Likert scale, with higher scores signifying stronger terms of agreement. We measured participants’ beliefs based on their responses to the following statements: 1) The movie reinforced and improved my current knowledge; 2) The content provided new ideas and
information that I expect to use; 3) The program was presented in a fair and unbiased manner; and 4) Based on the content of the documentary, I am better able to examine the diagnosis and treatment of perinatal mood and anxiety disorders in the United States. The findings indicated that a majority of attendees “strongly agreed” with all the statements listed which are illustrated in Figure 2. The averages for each statement were calculated accordingly: statement one had an average of 4.73/5 of the Likert scale with 76% choosing “strongly agree”; statement two had an average of 4.56/5 of the Likert scale with 65% choosing “strongly agree”; statement three had an average of 4.59/5 of the Likert scale with 67% choosing “strongly agree”; and statement four had an average of 4.38/5 of the Likert scale with 52% choosing “strongly agree”.

![Bar chart showing Likert Scale Program Evaluation Responses](image)

**FIGURE 2.** Likert Scale Program Evaluation Responses

The program evaluation had also collected narrative data by asking respondents the three following open-ended questions: 1) If you would like to further discuss any of the above responses, please do so here; 2) What change(s) do you plan to make in your practice or professional development as a result of completing this activity?; and 3) What resources could be provided by the NC Perinatal Association for your region of NC that would be helpful in your professional practice? Outlined in Box 1 are the three questions with their identified themes from the
narrative portion of the evaluations. Common themes indicated from the qualitative data were requests for referral resources, the need for more education of staff and communities about PMADs, and increased awareness about the importance of screening and getting treatment.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Themes</th>
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| **Further Discussion To Improve the Quality of the Program** | • Focus was on screening and critique of the system but not on treatment and next steps (11)  
• Offer a condensed video for meetings of healthcare and community groups (4)  
• More time for discussion after the film/small groups  
• Reduce bias (3) |
| **Changes to Practice**                       | • Increased awareness of signs and symptoms/PMAD (107)  
• Attention to screening/use of screening tools (86)  
• Advocate for access to care and resources (66)  
• Enhanced patient education/proactive discharge teaching (59)  
• Better listening/rapport with patients (34)  
• Interdisciplinary care (RN, OB/CNM, behavioral health) in a wider variety of settings (31)  
• Share information with coworkers (15)  
• Offer documentary showings (11) |
| **Resources by the NCPA Helpful for Practice**| • List of resources for referral (51)  
• More education for providers/more information on PPD and PP Psychosis (46)  
• Screenings (22)  
• Support groups (18)  
• Print and web-based material and patient education (i.e., for prenatal classes) (16)  
• Advocacy for pp home visit support/behavioral medications (5)  
• Information on cultural differences/languages (2) |

**TABLE 1.** Recurring Themes and Associated Frequencies Identified From Narrative Questions of Program Evaluations

**Discussion**

Our results must be interpreted in the context of a few limitations. First off, the program evaluations were voluntarily completed by the stakeholders in healthcare who decided to participate. Second, with the aim to eliminate bias, program evaluations were entirely anonymous. The mixed use of close-ended and open-ended questions on the program evaluations seems likely to contribute better quality data rather than if
respondents were provided a program evaluation that only asked strictly closed-ended or open-ended questions. In this secondary analysis study, the findings add to the existing literature by highlighting the substantial need for further access to current information for ongoing professional development. Many respondents had quite strong views about the lack of open dialogue in the clinical setting for those struggling in pained silence. Furthermore, a substantial number of participants had expressed that they plan to make a change in their practice or in their professional development as a result of attending the documentary viewing. Based on respondent feedback, the documentary screening format was effective as a vehicle for healthcare provider education. Loans were so frequent that a second video was purchased for distribution.

In order to reduce the onset or severity of the PMAD, secondary level interventions such as utilizing the effective screening tool, the Edinburgh Postnatal Depression Scale (EPDS), at regular intervals during regular health care visits during pregnancy and postpartum can detect perinatal depression. Although PPD screening improves case identification and can lead to better clinical outcomes, there are many barriers to receiving adequate PPD treatment that must often be overcome (Bobo, 2014, p. 835). Each woman experiences unique situations with unique symptoms. As the knowledge gap of healthcare professionals experiencing difficulty detecting PMAD symptoms is progressively closing, there continues to be a need for more education of staff and communities about PMADs.

**Conclusion**

PMADs continue to remain a complex problem. The statistics reported in Smith’s study (2012) surrounding this issue cannot be ignored, for perinatal depression alone affects up to 19.2% of new mothers during the first three months after childbirth (p. 80). Given the importance of recognizing PMAD symptoms early and the complexity of identifying and developing regionally-specific supports and services, the NCPA plans to continue using the documentary as an education intervention to empower healthcare professionals to be the voice for the voiceless and to encourage them to address maternal mental health with their pregnant and
postpartum patients. With the substantial number of stakeholders in healthcare expressing the need for more education regarding the importance of screening and seeking treatment, the NCPA believes that we can accomplish much more by taking on a multidisciplinary team-based approach.

The findings of this study lend support to the proposition that more promotion of PMAD education, screening, and support needs to be taken prior to and following discharge to minimize the effects PMADs can have on pregnant or postpartum moms, infants, and families. Utilizing childbirth and education classes to promote the discussion of maternal mental health, the time spent in these classes provide windows of opportunities for mothers to learn and ask questions about the risk factors, symptoms, and treatment options available to address their concerns and/or anxieties. Mental health resources for pregnant women, postpartum women, and their partners for each of the NC Perinatal Association regions (6) have been assembled for display on the organization’s website. In continuation of the progress made to enhance the wellness of the pregnant and postpartum moms in North Carolina, the NCPA is actively working to gather print and web-based educational material, accessible resources, and tools for nurses and other stakeholders in healthcare. As the NCPA continues to distribute DSoFM across the state with viewings for healthcare professionals, the NCPA plans to expand the documentary into community settings for the general public in a similar way.

References


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Are Musicians Morally Responsible for Interpretations of their Music?

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Abstract

This article was written to determine how much, if any, responsibility a musician holds for how others interpret their music. Music is one of the most common forms of art in the world and people are known for interpreting it in many ways. If someone were to interpret music in a negative way, then, leading to negative consequences, should the musician be held accountable? If not, then who is to blame, if anyone?

Music is, by far, one of the most wide-spread forms of artistic expression amongst cultures, societies - and more specifically - people. Musicians create music in a plethora of ways and oftentimes in hopes of reaching a listening audience. However, what if their listening audience takes what they are hearing and interprets and uses it in ways unimagined by the musicians? Are the musicians to be held accountable for how their audience interprets their music? Of course, the best-case scenario would be the audience interpreting the music in a positive light; even going so far as to be inspired to delve deeper into their own artistic expressions of the sort. However – worst case scenario – what if members of the audience interpret the music negatively and this leads to reckless, harmful and even deadly consequences; should the weight of accountability and blame still be placed on the musicians’ shoulders? In what follows, I will defend the view that, whether good or bad, the musicians should not be held
responsible for others’ interpretations of their music because it is not in their power to control how other people interpret or react to the music they create.

Focusing on the art of music, it serves as an outlet for musically inclined souls to express themselves in harmonizing melodies that are oftentimes accompanied by rhythmic lines of poetry. The interesting thing about music is that it can be written or produced by at least one person – the musician – for their own self-expression, but the music, in of itself, is an abstract vessel. When referring to music as an ‘abstract vessel’, I find that the phrase can be defined and explained in a multitude of ways. One of the best explanations to use is Philip Bohlman’s statement from *The Meaning of Music* by Shula Neuman. In the article, Bohlman states: “There are those who believe that music represents nothing other than itself. I argue that we are constantly giving it new and different abilities to represent who we are.” From that statement, I inferred that what makes music *abstract* is how simple yet conceptual it makes itself out to be -- as only an embodiment of harmonies and/or words. Furthermore -- regarding Bohlman’s statement -- music is a *vessel* in the way people use it to represent themselves by giving it the ability to hold different meanings accustomed to them. The artist can produce a musical piece with subjective purpose and meaning behind it but once it reaches the ears of whomever else happens to listen to it, it can serve as fuel for another purpose, even one with an entirely adverse meaning than originated by the musician. Most times a musician will perform their music publicly and will look for it to resonate within an audience -- whether for fellowship or profitable gain-- mainly because music is often seen as a bridge for connection and community. Many musicians create pieces that evoke emotions and reflections, subtly asking the audience to look inside themselves as the musicians would have when creating their musical works. Even though most musicians seek to provoke certain emotions with their music, it does not mean the musicians know precisely the effect their music could have on their audience.

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In this next example, despite this not pertaining to music exactly, it perfectly illustrates an artist who had her artistic expression (dancing) interpreted differently than how she would have interpreted it herself. In *Creators on Creating*, Isadora Duncan, revolutionary American dancer and choreographer, talks about a time when she was sixteen years old and performed a dance piece without any music. She goes on to describe her dance piece and the intricate yet expressive details that she put into her performance with a subjective purpose. However, someone in the audience of her performance was so provoked by her dancing that he immediately named it what he felt was being shown -- ‘Death and the Maiden.’ Duncan recalls: “But that was not my intention; I was only endeavouring to express my first knowledge of the underlying tragedy in all seemingly joyous manifestation. The dance, according to my comprehension, should have been called ‘Life and the Maiden.’”

This example reveals a very important point: artists can be so enthralled in their own work and attach their own meaning or purpose to their craft that where the artist perceives one thing, the audience or person beholding their art can perceive another. This is a common practice that is also shown in music and something musicians constantly must deal with, in their own right. It brings a whole new meaning to the phrase ‘beauty is in the eyes of the beholder’ or maybe it should be rephrased in the sense of the musician to -- ‘meaning is in the ears of the listener.’ Sometimes the musician’s intentions can conflict with the listener’s interpretations when they attach their own desires and feelings which leads to a miscommunication. This miscommunication can be slight or detrimental depending on who is listening to the music; nevertheless, it is only a miscommunication in the sense of how meanings differ from each other but the music, again, stands as an abstract vessel making this type of conflict possible and again, not within the musician’s power to truly control.

Music is such an abstract and conceptual art form that it is almost begging to be understood and interpreted by its captivated audience. Sometimes musicians do take the liberty of explicitly expressing their own interpretation or meaning of their music for their audiences to ponder, such as when musicians tell personal stories about events in their lives within their songs. It can clearly show that the story entirely pertains to the musician who is sharing it, but people can try to relate to the experience if they seek to do so. However, it is not uncommon for an artist to leave their work ‘open to interpretation’ for their audiences to try to decipher or create their own meaning for the artist’s work. It is sometimes seen as a humble gesture to allow someone to take something that could hold so much meaning for oneself and have someone else take it and make it his own in whatever way the person sees fit. Herbert Brün once stated: “As soon as the listeners have understood the work which was heard as a function of wish and fulfillment, of question and answer, of problem and solution, even though the understanding is based on the wishes and questions which the listeners contributed, they then are ready for the next step in the process of appreciating the music.”

Sometimes listeners will try to see what the artist was trying to convey in their work and look for hidden meanings or revealed life events of the musician but sometimes listeners connect their own meanings. The listeners’ meaning can connect to the music that the musician made, but oftentimes it is almost like answering a question that is solely based off their beliefs of what they perceive it to be. Much like Brün states, “Now they look at the wishes and questions which they had to contribute in order to make the composition a fulfillment and an answer.” Sometimes this could be seen as a beautiful, inspired and sometimes even eye-opening experience for the musicians whose work was interpreted. It could serve as some type of honor for the musicians because someone had gained such a purpose from their music. However, sometimes it could be a very sublime, mind-boggling and even

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3 Herbert Brün, "The Listener's Interpretation of Music" by Herbert Brun. (Jubilat, July 2004.) p. 39

4 Brün, The Listener's Interpretation of Music, p. 39
terrifying experience for musicians to have someone take such a stock in their music but with a purpose and drive to do something very inhumane, unimaginable or tragically, fatal.

Unfortunately, there are many cases where fans have interpreted some of their favorite musicians’ music with a morally corrupt and self-promoting agenda of their own. There are cases in fiction -- how classical music inspired Alex DeLarge in *The Clockwork Orange*-- but even more frightening, there are real life music-inspired cases that lead to fatal outcomes. One of the major cases is that of Charles Manson and his inspired killings with the ‘aid’ of The Beatles. Charles Manson is said to believe that the true meaning of The Beatles ‘*White Album*’ was the call for a revolutionary race war between the African Americans against the Caucasian Americans. Manson created a cult of loyal members called the ‘Manson Family’ which he created to do his gruesome bidding. The Manson Family murdered several people under the instructions of Charles Manson --most notably the actress Sharon Tate-- and on multiple sites, Manson would paint The Beatles’ lyrics that resonated with him on the walls of the victims’ homes he orchestrated his cult to murder. Manson explained the reasoning behind his inspiration: “Look at the songs: songs sung all over the world by the young love. It ain't nothin' new... It's written in... Revelation, all about the four angels programming the holocaust... the four angels looking for the fifth angel to lead the people into the pit of fire... right out to Death Valley. It's all in black and white, in the *White Album* - white, so there ain't no mistakin' the color.”

5 Though Manson was thoroughly convinced that his interpretation of The Beatles ‘*White Album*’ was the true meaning, his actions were not at all acceptable to The Beatles. When asked about the ‘Manson Family Scandal,’ Ringo Starr replied: “It was upsetting. I mean, I knew Roman Polanski and Sharon Tate...It was pretty miserable, actually, and everyone got really insecure - not just us, not just the rockers, but everyone in LA felt: ‘Oh, God, it can

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5 *"Charles Manson and Helter Skelter."* The Beatles Bible, 2011.
happen to anybody.’ Thank God they caught the bugger.” Manson took his interpretations to a whole other level but he was not the only one.

There are many other examples of fans with ‘killer’ interpretations of their favorite musicians’ work, including the 2011 Tucson Shooting and the 1999 Columbine Shooting. The Columbine shooting involved two teenage boys, Eric Harris and Dylan Klebold, patrolling their school, Columbine High School, killing 12 students, one of their teachers and themselves. People associated the mass-shooting with Marilyn Manson’s music because of the claims that the boys were possibly fans of his music. Though those claims were denied, many still blame Manson for the fatal and volatile actions of the two boys. In a list article, Estelle Thurtle explains, “Manson cancelled five of his shows scheduled to take place in the week after the shooting out of respect for the victims but also publicly lashed out--He stated that the media had unfairly turned his kind of music into a scapegoat for acts of violence and that this type of finger-pointing could lead to similar tragedies, since teenagers who were “different” would feel even more sidelined and bullied.” In yet another case, Drowning Pool’s song “Bodies” was deemed the ‘theme song’ for two fatal murder incidents -- one which included the critical wounding of a US Congresswoman. The first fatal incident was the well-known tragedy called the Tucson Shooting; this incident killed 6 people and critically injured US Congresswoman Gabrielle Giffords. The second fatal incident was a more intimate situation; a teenage boy stabbed both of his parents while listening to the song in his headphones. In Thurtle’s article, it acknowledges the band’s position in all of this; “Nevertheless, Drowning Pool was said to be devastated by the Giffords shooting. Even so, they posted a statement on their website that the shooters misinterpreted their lyrics, which cannot be blamed for the tragedies.” With Drowning Pools’ statement in mind -- who is to blame?

6 Ibid.

7 Estelle Thurtle, "10 Attempts To Blame Murder On Music" (Listverse, 2014.)

8 Thurtle, "10 Attempts To Blame Murder On Music."
Many people would say that the artist is to blame and with good reason. It could be said that the musician should be aware of the likely influence of a particular composition on his or her audience. The weight of admired musicians’ words resonates deeply within their fans, and most times, the fans are left hanging off every note and every word. Love and Mattern claims, “Finally, the arts and popular culture deeply influence character and foster or undermine civic virtue.”

When music is such a substantial part of everyday culture, it is not hard to believe that it will impact greatly the people who are listening to it. It is oftentimes parents who insist that music artists are to blame for their children acting out or if something bad happens in society. The most targeted genres are rap and rock music, probably because those are usually the genres with the most erratic, non-conformist lyrics and usually seen as a platform for accepting the ‘abnormal’ or evoking ‘rebellion’ in its listeners. Nevertheless, consider this: would they blame their children’s cavities on the store because the store had sweet snacks in which their kids happen to have indulged?

This analogy is interesting and serves a purpose worth exploring into; for example, what if we change ‘would they’ to ‘should they’. While some would argue for the affirmative -- because surely the store should look towards less sweets, more beets -- it is not precisely the store’s fault. The store did not instruct the children to eat so many sugary snacks that their teeth fall out, despite the case of the sweets being offered as an option at the store. The same goes for the musicians, because the minds of their audience -- no matter how entranced by the music they are -- are not in the musicians’ complete control in how it truly affects their audience. Unless in the most dire, unlikely circumstances -- where the artists are literally forcing their audience members to do their bidding -- the decisions that their listening audiences make are entirely their own. Despite the easy solution of using the artists as a scapegoat, the musicians are not morally responsible for the interpretations and actions that are inspired by their listening fans.

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Admittedly so, the musicians have more of a bridge to their fans now, and with this added modern influence, many people would say comes responsibility. In the days of the Beatles, Rolling Stones, Tina Turner, Sam Cooke and especially classical composers -- Mozart, Beethoven, Bach, etc. -- there was no such thing as Twitter, Facebook, Instagram and so on. Nonetheless, all it takes in the modern day is a couple taps on a phone screen to figure out what any favorite music artist is currently up to. As Nancy Love and Mark Mattern notes, “Musicians, photographers, graffiti artists, painters, dancers, performance artists, filmmakers, writers, and many others now take advantage of internet platforms such as Facebook, Twitter, and Youtube to disseminate their work.”

Social media serves as a powerful resource for musicians nowadays but if anyone remember the words of Spiderman’s Uncle Ben, then one would recall, ‘With great power comes great responsibility.’ Many people, whether adolescent or adult, look to their favorite celebrities -- oftentimes musicians -- as to whom they want to model themselves after. Especially when it comes to youth, musicians are highly influential; Love and Mattern recounts, “...they emphasize how television and music industry celebrities-- for example, Britney Spears, Kanye West, and Eminem-- shape young voters’ sense of collective identity.”

However, does being a responsible celebrity in one’s personal life require censoring one’s artistic expression in one’s music? It seems to take away the one thing the musician had for self-expression. The musicians or anyone in the public eye should govern themselves to the principles they see fit or best when their fans are watching but no one should be forced to limit their expression due to possible miscommunication or misinterpretation that could happen in any circumstance. Musicians make music for their own sake and allow others to take part in it and make it their own if they choose to; it does not automatically make them responsible for the decisions of every person who listens to their music. As Rollo May explains, “The artist is not a moralist by conscious

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10 Love and Mattern, Doing Democracy, p. 4

11 Ibid, p. 17
intention, but is concerned only with hearing and expressing the vision within his or her own being.”

Impressive pushback could be made, however, if someone were to reference Nietzsche’s *The Birth of Tragedy* where Nietzsche talks about music being a part of the Dionysian influence. This Dionysian influence within music is an intoxicating and chaotic force that bends the will of its listeners. Nietzsche makes the point of how powerful Dionysian music is and how it can turn from elation to agony on its listeners and followers resulting in utter chaos without joining forces with the Apollonian plastic arts to bring about balance. Although sometimes this balance is not always so equal and Nietzsche expresses this: “And as that happens, the Apollonian illusion reveals itself for what it is, as the veil which, so long as the tragedy is going on, has covered the essentially Dionysian effect. But this Dionysian effect is nonetheless so powerful that at the end it drives the Apollonian drama itself into a sphere where it begins to speak with Dionysian wisdom and where it denies itself and its Apollonian visibility.” The Dionysian effect is indeed so powerful that it makes the Apollonian veil fold upon itself and bend to Dionysian wisdom. If musicians are creating music that possesses a power such as this, surely, it seems they should know the control and power they have over their audience. However, this is not to say that the music does not have a power of its own. The musicians would not be in control of how music affects their audiences because the musicians can be just as submissive to its power. The musicians would be tilting towards the realm of the Apollonian. Nietzsche explains this point even further: “This entire discussion firmly maintains that the lyric is just as dependent on the spirit of music as is music itself. In its fully absolute power, music does not *need* image and idea, but only *tolerates* them as something additional to itself. The poetry of the lyricist can express nothing which was not already latent in the most immense universality and validity of the music, which forces

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him to speak in images.”\textsuperscript{14} If musicians are at the mercy of music just as much as the audience, then it is not entirely plausible to hold musicians accountable to the probable effects that music has on their listeners. Again, remember that music is a very conceptual and interpretive art form; it is bound to have some interpretations go haywire. The possibilities are endless, one song can hold a million different meanings to millions of different people with a million different mindsets.

Musicians cannot be held morally responsible for other people’s interpretations of their music. Though music is often seen as a soundtrack to one’s life, it does not serve as the ultimate guide of how to live and govern one’s life. Though it is understandable that music is a major influence in life and has contributed to culture in a major way, it does not precisely ordain the actions or the decisions that a person takes part in; even if the person claims the music inspired said actions. Music is abstract and takes a form of its own when it is put out for public enjoyment and interpretation, so it would be unfair for the artist to be held accountable for something they could not control. Even if they were the ones that released the music, they cannot be held responsible for the actions of every person who hears their music or uses their music for adverse endeavors that are possibly opposite of the artist’s intentions. Every person must try to find within themselves their own will and be held accountable for their own decisions in which they choose to govern their life; nevertheless, even if they cannot control themselves, it should not be the responsibility of the musician to do so. As the musicians are to be accountable for their own lives, so are the people who are listening to their music.

\textsuperscript{14} Nietzsche, \textit{The Birth of Tragedy}, p. 26
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The Visual Language and Teachings of Modern Art

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Abstract

This short essay aims to work towards ending the stigma surrounding modern art by answering a series of questions that can change the way in which a viewer thinks about modern art. The stigma to which I am referring is an underappreciation of technique and immediate judgement of modern art: people looking at a modern artwork and saying, “That looks so easy.” To achieve this goal, I will examine the concept of visual language within modern art in an effort to advertise the complexities and intricacies of modern art technique. The research of art historians and art theorists will be drawn upon to explore the concepts of both modern art and visual language in modern art. The reader’s understanding of said concepts will then allow me to assert my own hypotheses and thoughts on how one receives visual language and why the comprehension of the teachings of visual language is extremely important to one’s understanding of modern art. I will lastly include what modern art can teach a viewer. By the words “what art can teach a viewer,” it is not meant: what an artist or art historians say the art is supposed to teach a viewer; that is an entirely different concept constructed by verbal language. Rather, as I mentioned before, I will examine the concept of visual language and how it can teach a viewer.
The Visual Language and Teachings of Modern Art

Modern art and art in general is seldom given the opportunity to speak for itself. Its voice is often presumed and presented by a so-called “specialist” pretentiously analyzing the art—which often causes museum-goers to disregard the information being presented to them—or simply denied a chance to be heard. A lack of information about any topic can push people to form a negative opinion about it. Art as a creator and prompter of blood, hatred, love, and tears, should be allowed the ability to speak and teach on its own behalf in its own language. However, people tend to believe that art needs interpreting by an art historian or trained analyst to be understood properly. This is much like the concept of a professor lecturing on material from a textbook—an intermediary is used to untangle the difficulties the untrained brain cannot. If we took away the intermediary (the professor or art historian) and were left with the object (the book or the artwork), how could we as viewers still aptly and educatedly engage with the material? Our trained methodology of learning revolves around a verbal language, exchanged constantly to bring us more information that we crave, but this verbal language is that which surrounds art and does not emerge from the art itself. This paper will answer a series of questions in order to examine modern art, the visual language within modern art, and why comprehending the visual language of modern art is important.

What is Modern Art?

The visual language of modern art cannot be examined without first examining the concept of modern art itself. Though the dates are traditionally difficult to define, most art historians seem to agree that the

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1 I will be addressing only western Modernism in this essay because its visual language is seemingly more homogeneous than Modernism on a global scale. I will not attempt to analyze the visual language of global Modernisms which have played an equal role in revolutionizing modern art.
time period enclosing Modernism—the movement in which modern art is produced—can be safely approximated as beginning around 1850, in the midst of the Industrial Revolution, and continuing until the present. The specific dates of the movement are difficult to exact simply because Modernism is an overarching and continuing artistic movement that encompasses dozens of smaller movements. This means that each of the movements that sit under the umbrella of Modernism—Expressionism, Cubism, Surrealism, etc.—share the same basis of artistic theory, which for the purpose of this brief examination paper, will be outlined in accordance with a statement from the art theorist, Sheldon Cheney.

He explains Modernist art theory in a relatively uncomplicated manner that will be fleshed out to assist in the comprehension of the question: “What is modern art?” In regards to modern art, he says:

“Art is an activity…with an emotional realm of its own, concerned with expression rather than representation, with creation rather than imitation, and characterized in each separate work by a particular and essential quality in the nature of expressive form.”

Cheney’s explanation of Modernism breaks down the various concepts that make an artwork Modernist. First, he says that “art is an activity”, and this speaks to the evolution of the artistic process as the 20th century arrived. Commencing around the twentieth century, art as play and art as leisure revolutionized the creative process for many artists. Coming out of an extensive, centuries-long history of the artisan as the enlisted creator and craftsman, arts in association with architecture, masonry, and even city planning was not considered to reach the status of fine arts. Prior to this artistic revolution, generally, an artist created art because it was their

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4 Ibid, 36.
career. This new element of play freed artists and allowed for many new artistic ideas and media to be implemented.

Cheney’s second point is that modernist art is “concerned with expression rather than representation,” which alludes to a new overall style for artists working in this time. Art created in this time valued the expression of emotion and ideas through nouveau techniques and motifs within art marked by different color palettes, abstract forms, and exaggerated line. There was subsequently less emphasis on depicting a subject/figure in a naturalistic and realistic manner.

Cheney’s foremost attribute of Modernism is form or what he later calls “expressive form,” which combines his previous two points. Cheney devotes nearly an entire chapter to the explanation of expressive form, since its meaning is not related to the well-known concept of form as: a formal artistic quality denoting the use of illusionary, three-dimensional shape in an artwork. In a concise manner, expressive form gives an artist the freedom to reimagine a subject in order to create an artwork that translates the desired concept but also incorporates the creative emotion of the artist through the use of expressive materials. This idea marks modern art because it revolutionized an artist’s process with the simple inclusion of one factor: imagination. This seems perhaps obvious as a creative tool, but for artists trained traditionally to follow strict rules of fine art to create renaissance-esque figures of traditionally accepted subject matter, straying from the rules in such a blatant (what at the time was seen as garish) manner was innovative.

To briefly recount what the Modernist movement entails, three points must be outlined. First, during this movement, the creation of art became an enjoyable activity. As art becomes fun, an artistic freedom generates new ideas, such as unconventional media, design, and techniques. Second, Modernism tended to disregard naturalistic ideals, which then paved the way for new levels of abstraction in the formal

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5 Ibid.
6 Ibid, 39.
elements of art: line, color, form, tone, texture, pattern, and composition. Of paramount importance when describing modern art, are artistic freedom and imagination. Artists were not as often weighed down by commissions and artistic restrictions, so they created whatever emotion or idea they desired to express.

**What is Visual Language?**

Visual language is not a complicated concept that mere museum-goers cannot comprehend. However, a majority of the research on visual language is filled with overly-worded scientific jargon that delves much deeper than needed to find visual language in art; explaining the connection between the two is not difficult simply because visual language in art is something that everyone already detects to some extent. In order to thoroughly explain visual language, two different perspectives on what constitutes visual language will be examined.

Paula Eubanks, a researcher in the field of visual arts, aimed to prove that art is a visual language in her 1997 article. Her research, based on and similar to that of linguistic philosophers (scholars in the field of language) and art theorists, explains visual language in relation to verbal language. According to Eubanks and her sources, both verbal and visual language possess principally: form, content, and use. In verbal language, *form* is sounds, words, and their arrangement, *content* is the meaning behind them, and *use* is the goal of the delivered message. Eubanks then outlines what visual language is in art by describing that in visual language, form is the artist’s use of formal artistic elements in their work, content is the message the artist is conveying, and the use is the artist’s goal behind creating the work. Essentially, Eubanks writes that visual language is the artistic manipulation and usage of formal elements of art, such as line, color, and shape, to communicate a message—often created

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8 Ibid, 32.
by the artist—in order to achieve a goal. Here, visual language is the message that one gets from simply looking at a work of art and examining its make-up: what do the lines, colors, shapes, etc. mean to you?

Fernande Saint-Martin, a prominent professor and researcher in the fields of art theory and visual language, published a ground-breaking book called *Semiotics of Visual Language* in 1990. Her research first rejects a widely observed way of thinking about visual language in order to assert her own findings.\(^9\) Though Paula Eubanks [above] wrote many years after Saint-Martin, Eubanks’ school of thought regarding visual language is what Saint-Martin aimed to displace. Like Eubanks, many art theorists explained visual language in relation to verbal language, since they appear to mirror each other. Amongst those theorists, it was long understood that since verbal language had an alphabet and a grammatical structure, visual language—and art—did as well. Grammar concepts and rules were equated with the formal elements and academic rules of creating art. However, Saint-Martin focused on visual language in art of the Modernist period, which led her to a different conclusion. Modern art had become a movement without constructed laws; therefore, there was no place for grammar rules and no means by which to ground the teachings of visual language in the explanations of verbal language. Thus, Saint-Martin aligned herself with another, more philosophical school of thought regarding visual language. She argues that the experience of a space is the basis of human thought and perception of reality. To Saint-Martin, artworks are manifestations of visual language that recreate human experiences of space. A viewer looking in on this experience thus has their own experience, and that human experience had while looking at an artwork is the reception of visual language.\(^10\) Seemingly complicated, Saint-Martin is simply suggesting that visual language is anything in the artwork that provides the viewer with an experience. This seems


\(^10\) Ibid, 2.
somewhat vague, but rather, it is simple. If the figures, landscape, etc. make the viewer experience an emotion or sensory feeling (i.e. a memory, an inspiration) then those figures or landscapes are the artist’s incorporation of visual language.

Both perspectives possess equal validity, and their conclusions are somewhat similar. Saint-Martin’s and Eubanks’ explanations of visual language are relevant to modern art, and the remainder of this paper will rely on both explanations of visual language: visual language as a message brought forth by formal elements [Eubanks], and visual language as an element in an artwork that provokes an experience [Saint-Martin].

**How Does a Viewer Interpret Visual Language and Why is it Important?**

It has already been established that visual language is the message or experience provided by a work of art; however, it has been unclear how a viewer receives said message. This concept will be explained using an example. Below is the 1919 work, *Revolving*, by German artist, Kurt Schwitters.
Everyone has an instant reaction or opinion when looking at art: awe, hatred, confusion, etc. When I first examined *Revolving*, I thought the metal work to be simple and the paint to be a bit dull, but the earthy colors gave me a comforting feeling of home. Immediately following my first glance at an artwork, I (like many) reassessed the work in an attempt to unpack it, feeling guilty that I judged it after the first glance. After further observation, the lines created by metal pieces made me think about clocks, and I speculated that maybe this work was sending a message about the passing of time. This is where the two perspectives on visual language come back into play. According to Saint-Martin, anything in the artwork that made me have an experience—the paint colors making me feel at home—is the visual language. However, according to Eubanks, the formal elements that sent a message—the metal lines sending a message about time—are the visual language. Either way, there is a dialogue between artwork and viewer.

It would be anti-climactic to simply state that visual language is received by looking at a work of art; however, that is not far off. Visual language is seen *if* it is looked for. Previously stated, visual language is something that most people naturally detect. Visual language relies on the individual’s relationship with and interpretation of the work to deliver a message or provide an experience. This usually requires more than a quick glance at an artwork.

I stress the importance of the viewer’s understanding of the visual language in a work of art because that is what provides them with the experience or message. That is how art is meant to be consumed. I am not an expert on art consumerism, but I do understand that art is not created purely for aestheticism. Art is meant to be discussed, disputed, drawn upon, recreated and desired. This cannot be accomplished without an individual taking the time to form their own interpretation of the work based on the visual language that they received.

The interpretation cannot be based on verbal language because verbal language does not allow the viewer to produce their own thoughts about a work of art. If a person is told what specific things mean in a work
of art, they cannot interpret the visual language for themselves and thereby cannot have their own experience. Verbal language surrounding art, which again, can be spoken or written, will influence a viewer’s ideas about the work, and art must be interpreted by the individual. Evidently, it is difficult to disagree with a scholar declaring that blue symbolizes isolation, not a feeling of home, and metal lines share no correlated meaning with time. However, by allowing my own reception of visual language in place of adopting another person’s interpretation, I am encouraging my individual thought as well as providing innovative conclusions about an artwork.

**Conclusion: What Can the Comprehension of Visual Language Teach?**

This paper is meant to implore readers to reflect upon what they actually see when they encounter a piece of modern art, whether that be in a museum or a hotel lobby. There will thus be no quick glances, fast judgements, or simple statements of the art’s perceived beauty or lack thereof. Now, the understanding of visual language will be hot on their retinas scoping for formal elements and experiences--or at least something beneath a surface-level judgement. People will find that when they do attempt to unpack a piece of art—rather than plainly labeling it as meaningless—it is less simple and frankly, less disappointing. To the viewer who takes a second look, that line is no longer a line, but an arm of a clock. The colors are not dull, but an evocation of a sense of home. I believe that the principle teaching of visual language is open-mindedness. The rest of the teachings are hidden in the visual language of individual artworks waiting to be recognized.
References


Learning While Black:  
*Understanding the Lived Realities of Black Students Attending Predominantly White Institutions in the UNC System*

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Abstract

This study is dedicated to understanding the lived realities of Black students attending Predominantly White Institutions (PWIs) (defined as institutions with student bodies consisting of a numerical majority White student population) within the University of North Carolina (UNC) System. Recent protests and outcries from students of color voicing their unique hardships experienced at various PWIs across the U.S. have illustrated the need for contemporary research exploring the Black experience on White college campuses. The authors recognize the Obama era (2008-2016) as having a crucial impact on student perceptions and expectations relevant to their educational experiences. Therefore, this research concentrates on literature and cultural discussions specific to the years during and after Obama’s presidency. This study was conducted at two UNC institutions: one institution is recognized as having a diverse student population and was recently declared a ‘minority serving institution’. The other institution is recognized as a PWI with a student body consisting of 84% White students. This research employed a combination of short surveys and semi-structured interviews. In total, fifteen interviews were conducted with self-identified Black
undergraduate students and 234 surveys were completed by students of differing racial identities. Findings suggest that a social space serving students’ needs for protection and support is significant for Black students attending the explored PWIs. The experience of a social space does not demand a physical location or designated place, but rather a social arena constructed and maintained through a network consisting of bonds with other Black students on campus.¹

Introduction

Malcom X powerfully stated during his Oxford Union Speech in 1964 “America preaches integration, but practices segregation” (Mesa, 2014). It is likely that such a bold and sobering statement resonated with individuals of all races, compelling them to take an honest look at the racial hypocrisy present in America at that time. While one could mistakenly consider such a claim no longer relevant today, or even devoid of contemporary meaning (especially following the Civil Rights Movement and profusion of pleas made by Black leaders such as Dr. Martin Luther King Jr. and Booker T. Washington who insisted that Black Americans must integrate for the sake of our survival), over a half-century later, Malcolm X’s forthright allegation is as pertinent today as it was in 1964, continuing to bear tremendous authority as segregation is still quite commonplace throughout our nation: One notable example being college campuses.

Historically, African-Americans have been barred from attending mainstream American Colleges and Universities making HBCUs some of the only options for matriculating students. Once the doors of opportunity opened themselves allowing for previously banned students to finally joined the ranks of their White peers, Black students faced many obstacles while achieving their education. Black students at HBCUs were more

¹ I would like to acknowledge the support of my loving parents, Lawrence and Shirley Hobgood. It is through your tutelage and shining example that has formed me into the person that I am. Words cannot amass the amount of appreciation I have for the sacrifices y’all have made. I will only strive to become the amazing person you’ve worked so hard for me to become.
likely to feel safe, connected to campus and graduate than their PWI attending counterparts (Hunt 2003; New, 2015; Robertson, 2011). As contemporary universities become more diverse with Students of Color enrollment numbers increasing, issues of diversity and inclusion is becoming a larger and important conversation amongst stakeholders (Students, Faculty, Administration Donors, etc.) as the institution move towards the future (Gumport, 82). However, key issues addressed by Black students during the new era of integration is still being addressed after the Obama Phenomenon (or the ideal that America has become “Post-Racial” after electing its first non-white president) (Bonilla-Silva, 104). During the rise of the Black Lives Matter Movement, many Black students took to twitter to speak about the racial climate of their campuses; saying that they still felt like an unwanted visitor with only adjutant purposes. From the University of Missouri (Mizzou) (Naskidashvili 2015) to the Texas A&M University (Heinz 2016) to American University in Washington D.C. (Fortin 2017), Black students have faced horrific incidents of racial attack and harassment while on campus. After more incident became national headlines, Students began demanding their administration for more safe spaces, representative faculty and addressing racial issues they faced. However, the Black experience on White campuses are more nuanced than overt displays of racial tension but rather the sneaking suspicion that one is not fully welcomed or understood. In the words of Maya Angelou, “I’ve learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel.”

This study is dedicated to understanding the lived realities and experiences of Black students attending two Predominantly White Institutions (PWIs) within the state of North Carolina. One institution was recently declared a Minority Serving Institution (MSI) in 2015 with a 27% African-American student population of approximately 16,000 undergraduates (Voorhees 2016). The other institution is recognized for their lack of racial diversity as it’s undergraduate demographics are composed of 84% White and 3.8% Black students (College Factual 2016). These institutions were chosen for this study due to their significant contrast in racial diversity for Black/African-American students in
undergraduate populations. Our MSI is still considered as a PWI due to it not being a HBCU or Historically Black College/University. Participants from the MSI did not recall any importance on differencing an MSI from another PWI with less racial diversity. The MSI marker being awarded to their University was more important to the White students on campus than Black students according to the data gathered. Black participants reported that the University’s diversity was used as a cloak to disregard microaggressions and racial issues the Black student body was dealing with. The other university will be referenced as VM, for Vastly Majority, due to their very large White student population.

**Methodology**

This researched was composed of 15 semi-structured interviewed of Black participants from both sites (6 from the MSI and 9 from the VM; more VM interviews were conducted to balance out the lack of survey administered on their campus) and 234 surveys completed (107 Whites, 99 Blacks, 17 Asians, 3 Native Americans and 16 who identified as Other) from the MSI with participants from a variety of backgrounds. All interview participants were Black undergraduate students. Participants were given open ended questions with clarification questions asked in returned. No survey was issued at the VM due to time constraints, as surveys were given by a proctor in case participants required further information or clarification about the study. There was attempts to send surveys by email, but a large enough sample size was not collected. Survey information gathered by the MSI will only be used in reference to that site.

The survey was divided into 3 portions: Participant information, friend group demographics and feelings of inclusion on campus. The first portion was used to gather information on the participant, such as what year were they, how active on campus are they, alongside racial and gender identification. Participants would select out of a category which answer described them (such as if they were a First Year, they would select First Year Student out of the category). The second portion allowed for participants to answer questions on a scale of 0-10, with 0 being None and 10 being 10+. Questions revolved around how many friends did they
have that were non-white, black or minority, friends that are white, black or minorities as well as their close friends’ racial composition. The third portion was gauged on a scale of 1-5 to estimate how included and diverse campus, with 1 being “Very Little” and 3 being “Average” and 5 being “Very Much”. Questions asked participants of how diverse they perceived campus to be, how included did they feel in campus life, do they perceive their campus to be inclusive and how much diversity and inclusion a factor for was deciding to attend this institution.

**Transforming Reality into a Theoretical Framework**

Critical Race Theory (CRT) speaks on the everlasting permanence of racism within American society (Bell, 7). Social change can only bring about temporary solutions to a constant problem that is never going away (Bell, 9). Critical Race Theory has five major components: Counter-Storytelling, Critiques of Liberalism, Whiteness as Property, the permeance of racism and interest conversion (Donner, 197). For this study, Counter-storytelling, interest conversion and critiques of liberalism as the key elements used to place Black student’s narratives at the center of the conversation while addressing liberal approaches towards equity on college campuses.

For centuries, Black narratives have been placed in the margins of society until beneficial to the White majority’s needs (Bell, 23). White institutions are thriving off their growing multi-ethnic study bodies as White students use this to project their progressiveness and openness to those who are different while rending their minority peers in a state of unease and distance. While moving their narratives to the center, we gain the opportunity to see a fuller understanding of the situation and create a solution that attacks the problem at its source.

**(In)visibility on Campus**

Students at both research sites reported feeling that their Black bodies and presence were easily recognized on campus but their beingness and personhood was not always welcomed. This contradiction creates a *Hypervisible and Invisible* sense of reality on campus; with one’s racial identity observed foremost while their personal agency is dismissed.
Sometimes, when I speak about my life to my White peers or teachers… It’s so easy to reduce my experience as the general or stereotyped Black experience, and it’s like no, I’m speaking about me. I’m tired of placing Me after Black. I am Black but I am Desmond too.

- Desmond, MSI

As reported by many of our participants, being a Black student on campus could sometimes be a burden as being Black came before everything else. They were Black Students, Black Engineers, Black Business Majors, Black Greeks. Although they were connected by their Black identity, participants felt that it allowed for non-Black members of campus to generalize their experiences and minimize one’s personal narratives.

Students at VM, reported that they were expected to speak on behalf of Black people numerous times during their experience, further rendering their individuality invisible. These events could occur in the classroom, amongst non-Black friends or anywhere when sharing social space with White people.

You’re just the only Black person in your class and you’re usually the only Black person that is there to advocate, but at the same time it gets tiring because I have to advocate Every. Single. Time. … Well, if you’re Black, you must speak for all Black people versus I’m Kevin and I speak for Kevin.

- Kevin, VM

According to participant narratives, Black students are constantly battling a sense of otherness while on campus as their Black identity interrupts their ability to express themselves freely. Others ability to focus primarily on their Blackness keeps them trapped on the margins of
campus life, preventing themselves to be see as they are. The margins of campus are filed with stereotypes, symbols (such as University advertisement showing diverse ads and diversity celebrations), microaggressions and forced upon narratives by non-Black campus members about their experiences while matriculating. This sense of Otherness, prevents their non-Black peers from fully connect with them, keeping an invisible semi-permeable barrier between around them.

While participants from the MSI did not consistently report being socially exhausted; VM participants illustrated how overwhelming being around non-Black students can become, especially during moments when Black issues are taking public space. As concerns rise of importance, eventually entering mainstream campus life, conflict forms as non-Black peers began pushing the problem back into the margins ready to be dealt with at their convenience. Participants from both institutions reported having to confront conflict while on campus.

When [MSI] announced they were renaming an important building on campus because the current name was dedicated to some racist man who did not believe I deserved the right to be educated, unless as someone’s plumber, maid or carpenter. I was pretty excited, but so many of the White students were upset about this, telling [Black Students] we were being sensitive, and we should let the past go. They told me I should celebrate all the money he gave to this school… but when I told them it hurts me that this same man would have me ran off campus because of my skin, they just dismiss it. They said, well that was back then. It made me feel like I don’t matter here. Who cares about my feelings?

- Dominique, MSI

During the study, participants from VM said they felt the most invisible during class or interacting with teachers. For them, classrooms were emotional minefield as peers were encouraged to have discussions about hot topics. Due to being one of a few (if any) Black students in class,
their feelings of isolation were the most intense as they were pointed out for their Blackness in celebration as they were asked to enlighten the class on Black people or seen as less capable or qualified than their non-Black peers. It was interesting to hear that Black male students had to constantly fight the assumption that they were athletes and only could attend the school due to an athletic scholarship. In “Assume the Position... You fit the Description” Psychological Experiences and Racial Battle Fatigue Among African American Male College Students by William A Smith describes, “For African Americans, racial battle fatigue is the result of constant physiological, psychological, cultural and emotional coping with racial microaggressions in less-than-ideal and racially hostile or unsupportive environments (campus or otherwise) (Smith, 555).

I’m one of 12 Black students in our Biology department… So, I signed up for one of our more advance courses that only had around 60 students in it. As always, I’m the only black or brown dot in the room. The class was pretty hard, so I would always ask the teacher questions, but she would downplay it, but if the White guy beside me asked the same thing, it was brilliant. … I got to the point where I would ask him to ask my question so it could finally get it explained properly. When I approached her about it, she said that it was all in my head and not to worry about it as we had a big game coming up this Friday.

- Anthony, VM

Student’s ability to be in a paradoxical state of being seen and unnoticed caused them stress and anxiety around campus, especially in the presence of their White peers. Tired of always having to be Black before anything else, and only a true member of campus when their non-Black peers demand unity against a shared interest creates social exhaustion.

Creating Social Space and Connection on Campus

As mentioned earlier, Black students are placed onto the margins by seeing the Black body before the individual person. Navigating the margins of campus society can be emotionally and mentally exhausting
as some of our participants have noted. Participants from the MSI spoke why their institutions diversity mattered.

I didn’t come to here because of the diversity, like… it wasn’t even on my mind when applying. But, after being in a super White major that talks about politics, it’s nice to have someone to talk to and not be judged when I speak about something happening in class. My friends keep me sane… Not that I have a problem with individual White people, but it’s nice to speak to a bunch of Black people at the end of the day and let loose.”

- Elisa, MSI

Black survey participants were more likely to report that diversity matter “Very Little” to them when choosing to apply to their institution. White survey participants were more likely to report “Very Much” that diversity was an important factor when deciding to apply. During the interviews, MSI participants reported that their campus’s large Black population eased feelings of isolation and alienation, but still felt distant towards their white peers. Interview participants spoke about the large amount of university sponsored Black related activities, events and organizations on campus helped them feel as a real member of campus. Some students even took up the mantle of call MSI a “HBCU experience at a PWI”. Black students did not have to look far to meet and connect with other Black students.

Participants reported feelings of being unwelcomed and isolated came while interacting with non-Black students while expressing their Blackness to the entire university. From seeing non-Black students mock parts of their culture (such as hip-hop dances or inappropriately using slang) to political conflicts, these incidents removed them from campus life as they felt their White peers were talking over them than to them.

So, we have a campus activity board here on campus that organize all the campus events. Majority of the board members
are Black, so the events play a lot of Hip-Hop and Rap. While we’re dancing and enjoy ourselves, you can hear the White students participating but not showing respect to us and the music in the process. Sometimes it feels like they’re making a caricature of us as they laugh. If we confront them and say, “Hey that’s not cool” then we’re the sensitive one who needs to be checked. I’m in the wrong. If all of us were to make a scene about it, then we’re the problem not them.

- Rhonda, MSI

Participant Marquis also stated, “When [non-Black students] are having fun with us, I wonder, are they having fun with us or at us?” Diversity matters because it creates a greater opportunity for Black students to forge their own social spaces on campus especially amongst a diversity of Black identities. Social spaces do not require a designated location such as a multicultural center, but an environment (social, physical, emotional, mental) for them to express themselves freely. This space is created and maintained by Black students to relax, debrief, heal from wounds and prepare themselves to return to the mainstream campus life (Tatum, 77). Black and other minority survey participants were more likely to report having many same race minority friends with one to three White friends than White survey participants, who were more likely to report having mixed friendships. Black and White survey participants were more likely to say they had no close friends of a different race. MSI participants reported that although their institution is very diverse, de facto segregation was still commonplace.

Yea, they say that MSI is so diverse and everything. I’m like, “Okay, it is”, but in my mind, I’m always thinking of how we have all this diversity, but everyone is still separated. In the café, we have the “White section” and the “Ghettos,” where the Black kids be at.

- Elisa, MSI
While MSI’s diversity and large Black student population provided a cushion for the racial tension on campus, VM participants reported feeling the most isolated from campus due to its incredibly small Black population. While conducting this research, the research party could go for almost two hours before seeing another Black student on campus during the weekend (with campus events being held). VM participants reported feel battle worn from non-stop interactions with their White peers with no Black support group established. Many participants reported that before they join Black organization or met other Black people, they were on the verge of transferring to another institution with more diversity.

I decided to come here because of how beautiful it looks on this side of the state and because they gave me a good amount of money to come, so I said, “Why not?” But during my first year being here and living on campus, I felt depressed and lonely. My White friends would try to listen, but they couldn’t get what I was feeling, ya know? I left every weekend until I joined Chorus. It was the first time I was around so many Black people while here, it was only 8 of us. We didn’t even sing most the time, we would just sit and talk about our day. Then when we did, we would sing the Blackest song we could think of.

- Yasmine, VM

My White friends tried their best to listen to my problems when I first got here, but I got tired to constantly explaining myself. They “got it”, but I wanted that “Yea, I know too” moment. I really wanted to transfer because I didn’t fit in. … In order to stay around other Black guys and embrace my culture I became a Kappa.

- Anthony, VM
Going Greek totally saved my experienced. I was almost on the verge of transferring until I crossed over. I finally had my group of Black friends to chill with and be myself around.

- Kevin, VM

It is through establishing a social space amongst other Black students were they able to find a more suitable way to navigate campus life. VM participant Egypt stated, “Too often does it feel like being a square block going through a circle hole. Yea, it’ll fit once you force it in. I’m so tired of forcing it.” Since White spaces demand non-White people to conform as they hold the property rights to the space, Black expression is curbed in order to fit in (Feagin, Vera and Imani, 58). Without a proper space to release themselves into, they have experienced potential depression as they were placed into the margins of campus with no one to relate to.

Both study sites reported issues of representation at large campus sponsored events, such as Homecoming, as the campus show how non-Black it is by how many White alumni return to their institution.

To keep it fair, I don’t care about our Homecoming and I probably won’t make serious plans to attend when I graduate. It gets real White around here during Homecoming week. Even the Black student and alumni I know attend the local HBCU’s Homecoming instead. It’s well known around here that MSI’s Homecoming is for them and we celebrate [local HBCU’s] homecoming when it comes.

- Desmond, MSI

In general, participants described having racially and ethnically homogenous friend groups. Additionally, Students expressed feeling exhausted and frustrated when attempting to debrief their White peers. Participants from both study sites reported having good relationships with White peers and their White professors, but still felt cautious until proven they can be an ally or at least non-problematic to them. Friend groups are the most intimate social
spaces students can construct, forming the backbone on how they interact and see themselves (Tatum 60). Black students having a desire to create friend groups with primarily other Black students (with a possibility of 1 or 2 White friends) illustrates the complexities of interracial relationships on campus. Thus, Black students often rely on protected social spaces amongst peers for psychological recovery, emotional recharge and preparation for engaging with the predominantly White campus community.

**Seeking Change on Campus**

During this study, we noticed efforts on both campuses to increase or celebrate diversity amongst the student population. As noted previously, diversity allows for a wide range of individuals to meet people like themselves while interacting with people who are different. Having diversity gives these campuses as a mosaic appearance; all these beautifully different pieces working together to make an even more sublime creation. However, with rises in diversity the importance of inclusion because greater (DiAngelo, 68-69). While diversity is the principle of having many differences within the same space, inclusion is the act of bring everything together and making sure they are working together. Diversity does not require inclusion, but when removed from the conversation, exclusion is bound to happen. Especially to those who yield unequal power to the dominant culture.

Throughout this study, issues of isolation and alienation are common themes mentioned by participants from both study sites when interacting with non-Black members of campus. This is an issue of inclusion as they do not feel authentically included within campus life. Students reported feeling that their inclusion to campus is not for their benefit, but for the interest of the university. Student Keshia reported, “So, it’s just like [campus] wasn’t made for us, but I would like for them to try and include us in more things than just taking a picture and coming to a diversity celebration.” Participants spoke on wanting to see more Black faculty members, making minority focused courses mandatory than electives, seeing more funding and attention on events that promote
Blackness and Black excellence while speaking about more issues that affect the Black community.

As Marquis noted” I have to learn about so many old racist White folk, but courses that teach that Black History is American History and that the Civil Rights Movement wasn’t the last great accomplishment by Black Americans would be nice.” As noted, Students want to see themselves becoming moved from the margins of society into the center with their White peers. Making sure that their voices are just as important and instrumental to campus life.

Participants also spoke on wanting to see the university become more sympathetic to their desires and wants on campus, may it a campus or national issue, students wanted to see the university stand with them and show concern for their feelings.

I feel that the University doesn’t give enough attention to the issue of the Black community. The other minority students get to hear, “We support you” “We stand with you”, but when [Charlotte Uprising] happened, which was rather close to home, not enough was said. I want to feel supported as well.

- Egypt, VM

Students who said they were disappointed or frustrated with their Institution’s administration said they’re greatest plan was to work hard to graduate. For MSI, participants spoke greatly on wanting to see greater and bigger efforted sponsored by the university to make campus more inclusive. Participants felt that student housing was the perfect place to begin making the change as most of their worse incidents happened in the residence halls or in the classroom. VM participants wanted to a larger spike in diversity and appreciation for the Black population on campus. They wanted to be heard, seen and acknowledge for their contributions to campus life and protected when racial situations arise.

Conclusion

Common themes found within this study illustrated that Black students are still struggling with the same issues as their historic
counterparts in the dawn of integration. Junius A. Davis studied the Black experience in 1973 at North Carolinian PWIs noted in her study that Black students struggle to find identity and self while on campus. Students spoke greatly about their concerns about social space on campus that not only provides Black students a sense of protection but recognizes and celebrates Black agency with authenticity. Participants believed that protected social space allows Black students to connect with one another through their shared difficulties and experiences of learning while Black. Feelings of rejection or alienation forms a Hypervisible and Invisible reality where students’ Black body is recognized before the actual being is, forcing them to be a mouthpiece of the collective. Subjected to typecasting and stereotypes, students establish bonds with other Black students to heal them from the harm done upon them.

Additionally, participants suggested that a protected social space empowers Black students emotionally and psychologically by providing an atmosphere of understanding and most importantly, acceptance.

When I’m on campus with my [Black Friends], I don’t feel isolated… I finally feel… here. I feel like I’m having the college experience that I’m suppose to be having, like they show in all those college movies where they don’t have a care in the world. Granted, I’m still Black, but I’m me. I get to be Me first.

- Desmond, MSI

Conversations about race on college campus typically appear after covering national headlines and news attention generating widespread protest and townhall meetings from political figures; we sometimes forget to have discuss the daily issues in the same manner. Racial identity and politicking are navigated on a regular basis by the students who go through it. Demands for social change come after a long-established frustration and dissatisfaction with how the system works that transforms silence into screaming. Screaming for visibility, screaming for respected space and expression, screaming for so justice won’t continue to be delayed. When conversations about the lived realities of minority students become a part of the mainstream campus, students would not have to
worry about their identities becoming their central feature that disregards the being. Diversity does not mean much if inclusion is not a part of the discussion. Our campuses should strive towards inclusion to become more effective at accommodating the social needs of Black and minority students.

The Research Party believes that future research could benefit from incorporating intersectional theories to understand the dynamics of Black identities and how they create their lived experiences on campus (such as class, sexual orientation, gender identity, religious affiliation, nation of origin, etc.). The Black experience is too rich and diverse to be confined to only one definition of Blackness or Black experience. Participants of multiple oppressed identities (ex. Gay Black Muslim Woman), spoke on themes unique to their experience that should not be removed to fit an overarching narrative.

References


Glycerol as an Extraction Solvent for Botanical Extracts of Goldenseal (*Hydrastis canadensis*)

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College of Arts and Sciences, UNC Greensboro

**Abstract**

This experiment was performed to compare the outcomes of extracts performed with glycerol and glycerol/water as opposed to a standard solvent, such as methanol or ethanol/water, to extract the alkaloids berberine, canadine, and (1R,9S)-(-)-β-hydrastine from the leaves of *H. canadensis* (goldenseal). It was determined that methanol and ethanol/water are still more effective solvents than both glycerol and glycerol/water in extracting all compounds: 1.2% of all plant material was berberine when extracted in methanol and 0.91% in ethanol/water, as compared to 0.49% in glycerol/water and 0.20% in glycerol alone. The same trend continues when comparing hydrastine in plant material, insofar as methanol and ethanol/water extracts containing more hydrastine (0.39% and 0.37%, respectively), but glycerol/water and glycerol extracts contain similar amounts as well (0.20% and 0.15%, respectively). Again, for canadine, methanol (0.035%) and
ethanol/water (0.019%) extracts contain the most hydrastine, but the glycerol extracts (0.011%) contained levels of canadine close to ethanol/water extracts, and much more than glycerol/water extracts (0.0088%). Although methanol and ethanol/water extracted a larger quantity of the compounds, it could still be advantageous to use glycerol as a solvent because of its lower toxicity as compared to the other organic solvents.

Introduction

This experiment compared the extraction capabilities of four solvents—methanol, 50% ethanol:50% water, glycerol, and 50% glycerol:50% water—to investigate whether or not glycerol could be used as an alternative extraction solvent. As compared to methanol and ethanol, glycerol seemed to be a more favorable option because it has less hazards associated with it. Methanol and ethanol are both flammable solvents and evaporate very quickly (Sigma Aldrich, 2016; Sigma Aldrich, 2015), but they are solvents typically used in extractions: methanol in experimental laboratories and ethanol in the production of tinctures (Brown, 1999).

Tinctures are herbal extracts where an alcohol (usually ethanol) and water are the solvents (DeSantis, 2010). However, glycerol is sometimes used as an alternative even in tinctures for those who cannot consume alcohol, and also because it makes the tincture taste sweeter (Brown, 1999; Parihar, 2011), which, if used in the production of dietary supplements, would make some medications better suited for children (Gu, 2010). Glycerol is also much less toxic than both methanol and ethanol; it does not pose any risk of harm due to inhalation and is not corrosive or carcinogenic, making it a safer chemical which with to work (Gu, 2010; Sigma Aldrich, 2015). Methanol, when ingested, can cause blindness (Sigma Adrich, 2016), and ethanol can be a central nervous system depressant (Sigma Aldrich, 2015).

In this experiment, H. canadensis (goldenseal) leaves were extracted to determine how much of each of the three main alkaloids—berberine, (1R,9S)-(−)-β-hydrastine, and canadine (Ettefagh, 2011)—could be extracted in each. Goldenseal is a plant that has been used in traditional Native American medicine for a vast variety of ailments, such as bacterial
infections, and is a popular herbal supplement (Junio, 2011). It is the goal of this experiment to determine if glycerol or a 50:50 (v/v) mixture of glycerol with water can be used as another, safer extraction solvent.

**Experimental**

**Chemicals and Plant Material**

Berberine chloride, (1R,9S)-(-)-β-hydrastine, and glycerol were purchased from Sigma Aldrich, and canadine (tetrahydroberberine) from ChromaDex. *Hydrastis canadensis* (goldenseal) leaves were harvested in Hendersonville, NC in June of 2015.

**Extraction of Goldenseal and Liquid Chromatography-Mass Spectrometry (LC-MS)**

For every 1 g of powdered *H. candensis* leaves, 5 mL of solvent (1:5 w/v) was used to prepare the extracts (Ettefagh, 2011). The four solvents used were methanol, 50:50 (v/v) ethanol and nanopure water, glycerol, and 50:50 (v/v) glycerol and nanopure water. Four extractions were performed for each solvent used. Plant material and the solvents were sonicated for an hour and extracts were collected by vacuum filtration. Each extract was then prepared for LC-MS analysis by serially diluting each tenfold in a 10:90 mixture of extract to methanol until there was no color, and then performing two further dilutions. Standards were prepared at concentrations of 50 µM and serial-diluted by twofold in a 50:50 mixture with methanol to a final concentration of 0.39 µM.

The presence of berberine, canadine, and hydrastine was detected using a hybrid LTQ Orbitrap mass spectrometer (Thermo, Orbitrap XL). All dilutions of each extract, except for the first, and all concentrations of the standards were analyzed via liquid chromatography-mass spectrometry (LC-MS). A 3 µL injection of each was eluted from the column (Acquity UPLC BEH C18 1.7 µm, 2.1 × 50 mm, Waters Corp.) at a flow rate of 0.3 mL/min using a binary gradient with water and acetonitrile (A and B, respectively), both Optima LC/MS grade and both with 0.1% formic acid additive. The gradient began at 95:5 (A:B) and remained constant from 0.0-0.1 min. It decreased from 1.0-2.0 min to
90:10 (A:B), and continued to do so: from 2.0-3.0 min there was a decrease to 80:20 (A:B), from 3.0 to 4.0 min there was a decrease to 60:40 (A:B), and from 4.0-5.0 min there was a decrease to 30:70 (A:B). This was followed by an isocratic hold at 30:70 (A:B) from 5.0-6.0 min, after which the gradient decreased to 0:100 (A:B) from 6.0-7.0 min. Starting conditions of 95:5 (A:B) were reestablished from 7.0-8.0 min, and the gradient was held at this composition from 8.0-9.0 min.

Mass spectra were collected using two scan events. The first scan event was a positive mode full scan with a mass range from 125-1500 m/z and a resolution of 30000. The second scan event was data dependent, and fragmented ions that were most abundant from the first scan event. The mass spectrometer was operated using a heated electrospray ionization source with the following settings: capillary temperature set at 350.00 °C, source voltage set at 4.00 kV, sheath gas flow set at 35.00 (arbitrary units), and auxiliary gas flow set at 30.00.

**Quantitation**

To determine what percent of the initial plant material each compound made, the best fit lines from the calibration curves were used to get the diluted concentration from peak area. That concentration was then multiplied by a relevant factor to adjust for dilution. For each solvent, the average concentrations (in µM) were averaged. The average concentration was then multiplied by the molar mass of each compound and the average ratio of solvent to plant material initially used to create each extraction. Calculations were performed using Microsoft Excel.

**Results and Discussion**

The extracted compounds are listed in Table 1 with their molecular formula and structures.

### Table 1

**Compounds Extracted from H. canadensis**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Formula</th>
<th>Structure</th>
</tr>
</thead>
</table>

54
<table>
<thead>
<tr>
<th>Compound</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berberine</td>
<td>C_{20}H_{18}NO_4^+</td>
</tr>
<tr>
<td>Canadine (tetrahydroberberine)</td>
<td>C_{20}H_{21}NO_4</td>
</tr>
<tr>
<td>(1R,9S)-(-)-(\beta)-hydrastine</td>
<td>C_{21}H_{21}NO_6</td>
</tr>
</tbody>
</table>

Calibration curves were made using the LC-MS data of each standard. For berberine and hydrastine, the concentrations ranged from 0.39 \(\mu\)M to 25 \(\mu\)M because the data deviated from linearity at 50 \(\mu\)M. Because canadine was in such low abundance in the samples, only the lower half of the canadine calibration curve (0.39 \(\mu\)M-1.6 \(\mu\)M) was used.

Each compound was detected in all extracts, which was confirmed
by matching protonated accurate mass and retention time of each sample against the chromatograms of the standards, which are listed in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Compound</th>
<th>Calculated accurate mass (m/z)</th>
<th>Retention time of standard (min)</th>
<th>accurate mass (m/z)</th>
<th>Retention time of extract (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berberine</td>
<td>336.1222</td>
<td>4.84</td>
<td>336.1236 [M+]</td>
<td>4.84</td>
</tr>
<tr>
<td>(1R,9S)-(-)-β-hydrastine</td>
<td>384.1434</td>
<td>4.36</td>
<td>384.1448 [M+H]+</td>
<td>4.36</td>
</tr>
<tr>
<td>Canadine</td>
<td>340.1537</td>
<td>4.70</td>
<td>340.1550 [M+H]+</td>
<td>4.70</td>
</tr>
</tbody>
</table>

After averaging the peak areas collected from each chromatogram and using the calibration curves for the respective ions, it was determined that
berberine, as suspected, was the most abundant compound across all solvents, followed by hydrastine and canadine. A sample chromatogram from one extract is shown in Figure 1.

Figure 1. Chromatograms from the first methanol extract. Chromatogram A is the base peak chromatogram, which shows all of the most intense peaks. Chromatograms B-D show only specific masses: 336.1236 g/mol, 340.1550 g/mol, and 384.1448 g/mol (berberine, canadine, and hydrastine, respectively).

In the base peak chromatogram, the two major peaks are hydrastine and berberine, which shows that they were the most abundant ions at any
given time. Canadine does not appear in this chromatogram, which only indicates that it was in low abundance. Selected ion chromatograms B, C, and D were included to show that each compound was present. It is important to note that, although each peak seems to be the same height in the selected ion chromatogram, each peak area is different. Figure 2 shows that, across the four solvents, methanol and the 50% ethanol:50% water solution were the two that had the highest concentration of each compound, in comparison to glycerol or the 50% glycerol:50% water solution. Table 3 lists the calculated concentrations and percent of the plant material that each compound made, per solvent type.

Figure 2. Average concentrations of berberine, canadine, and hydrastine in each solvent.

This graph confirms that canadine is only barely detected in any of the extracts, but methanol and ethanol/water extracts seemed to have more than glycerol or glycerol/water extracts, which seem to contain the same amounts.
### Average Concentrations and Percent of Compounds in Plant Material

<table>
<thead>
<tr>
<th>Compound in plant material ± standard deviation (%)</th>
<th>Average concentration ± standard deviation (µM)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Berberine</strong></td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>7335.7 ± 4.3E+03</td>
</tr>
<tr>
<td>50% ethanol:50% water</td>
<td>5412.5 ± 9.0E+02</td>
</tr>
<tr>
<td>50% glycerol:50% water</td>
<td>2924.9 ± 1.3E+03</td>
</tr>
<tr>
<td>Glycerol</td>
<td>1205.4 ± 4.5E+02</td>
</tr>
<tr>
<td><strong>Canadine</strong></td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>205.9 ± 8.8E+01</td>
</tr>
<tr>
<td>50% ethanol:50% water</td>
<td>109.1 ± 1.6E+01</td>
</tr>
<tr>
<td>50% glycerol:50% water</td>
<td>51.5 ± 1.0E+01</td>
</tr>
<tr>
<td>Glycerol</td>
<td>66.4 ± 8.4</td>
</tr>
<tr>
<td><strong>(1R,9S)-(−)-β-hydrastine</strong></td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>2032.6 ± 9.0E+02</td>
</tr>
</tbody>
</table>

**Berberine**
- Methanol: 7335.7 ± 4.3E+03, 1.23 ± 0.72%
- 50% ethanol:50% water: 5412.5 ± 9.0E+02, 0.91 ± 0.15%
- 50% glycerol:50% water: 2924.9 ± 1.3E+03, 0.49 ± 0.22%
- Glycerol: 1205.4 ± 4.5E+02, 0.203 ± 0.076%

**Canadine**
- Methanol: 205.9 ± 8.8E+01, 0.035 ± 0.015%
- 50% ethanol:50% water: 109.1 ± 1.6E+01, 0.0186 ± 0.0028%
- 50% glycerol:50% water: 51.5 ± 1.0E+01, 0.00876 ± 0.0018%
- Glycerol: 66.4 ± 8.4, 0.0113 ± 0.0014%

**(1R,9S)-(−)-β-hydrastine**
- Methanol: 2032.6 ± 9.0E+02, 0.39 ± 0.17%
<table>
<thead>
<tr>
<th></th>
<th>Concentration</th>
<th>Extraction Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% ethanol:50% water</td>
<td>1898.6 ± 2.5E+02</td>
<td>0.365 ± 0.049</td>
</tr>
<tr>
<td>50% glycerol:50% water</td>
<td>1040.6 ± 2.3E+02</td>
<td>0.200 ± 0.044</td>
</tr>
<tr>
<td>Glycerol</td>
<td>758.7 ± 1.3E+02</td>
<td>0.146 ± 0.025</td>
</tr>
</tbody>
</table>

**Conclusion**

Overall, methanol and ethanol/water seem to still be better solvents than glycerol for extraction of *H. canadensis*, but it is encouraging to see that both glycerol and glycerol/water were able to extract all three of the compounds. Although there was less compound extracted as compared to methanol and ethanol/water in the glycerol solvents, glycerol and its mixture with water are able to act as extraction solvents. This suggests that glycerol could be used as a safer alternative to the more harmful alcohols. While disadvantages to using glycerol, and even glycerol/water, would include longer extraction times (due to the high viscosity of both solvents) there is no significant increased risk to whomever is performing the extractions (Gu, 2010; Sigma Aldrich, 2015).

Glycerol and glycerol/water seem like they are less effective extraction solvents, but these results could be because only alkaloids were being looked for. It is possible that certain classes of compounds would be better extracted by glycerol, a topic which could be investigated with a future study.
References


CONTRIBUTORS

Nadine Palacio earned her B.S.N. degree from the School of Nursing at UNC Greensboro, graduating with Disciplinary Honors from Lloyd International Honors College in May 2017. She currently works as a Registered Nurse.

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Alexandra Y. Romero is double majoring Art History and French in UNC Greensboro’s Lloyd International Honors College, where she is completing Full University Honors. Throughout most of her undergraduate career she worked in the Weatherspoon Museum of Art.

Amari T. Hobgood graduated in 2017 with a B.A. in Sociology, concentrating in Criminology, and a minor in African American and African Diaspora Studies from the College of Arts & Sciences at UNC Greensboro. A former member of Strong Residential College she currently works for the State as a Youth Behavior Specialist.

Nadjali A. Chung graduated from Lloyd International Honors College at UNC Greensboro with a B.S. in Biochemistry, having worked in the Cech Laboratory focused on medicinal chemistry. She is currently a Ph.D. student in Chemistry at Vanderbilt University.
Y ddraig goch means “the red dragon” in Welsh. First recorded around 829 C.E. in Historia Brittonum, the red dragon has long been a symbol of Wales and appears on the Welsh flag. The red dragon is also the mascot of Lloyd International Honors College in honor of its benefactress, Rebecca A. Lloyd, whose parents came to the United States from Wales. In 2013, the Honors College began a tradition of sending students abroad with a small red dragon to take a picture with and send back. See the There Be Dragons Honors College student blog at lihcdragonblog.blogspot.com.
REBECCA A. LLOYD was a 1950 graduate of Woman’s College (the name for the University of North Carolina at Greensboro prior to 1963). In 2006 she gave her family’s name and her financial support to establish and endow Lloyd International Honors College by donating $4 million, the largest alumni gift the university has ever received. Of her support for the Honors College, Lloyd said, “The Honors College will give students the international viewpoint that’s needed in their education. To the extent that my gift can help world peace come about, I’m happy to be making it.”
The Underground Railroad Tree: An Exhibit and Exploration through Art, History, and Science

Engaged experiential learning with Honors College and McNair Students at UNC Greensboro

Omar Ali and Nadja Cech

Deep in the Guilford forest there is a great tree. For over 300 years, the massive tulip poplar has prevailed against ice storms, hurricanes, and lightning, to stand today as one of the oldest trees in North Carolina. The tree is a marker of the southern terminus of the Underground Railroad, a living monument to the struggles of over 2,000 enslaved Africans and African Americans who found their way to freedom. Today, in the quiet shade of the great tree, we imagine the footsteps and murmurs of fugitives as they secretly made their way northward under the cover of night.

There has been much recent debate about the existence and display of memorials that reference slavery and the Civil War. Here we offer a different kind of exhibit. In The Underground Railroad Tree, curated by artist and UNC Greensboro staff member Matt Bryant, we collaboratively
explore a broader view—one that intertwines different lives and blurs boundaries. The work displayed and performed was first conducted at UNC Greensboro by students, faculty, and staff in the context of two classes, an Honors History and methodology seminar co-taught by ourselves, and an Organic Chemistry course taught by Dr. Kimberly Petersen. Through collaborative research and creative activity, the exhibit highlights the ways in which history, science, art, music, and dance are synergistic, complementary, and inextricable.

**Human Networks**

Africans first arrived in 1501. Over the next three and a half centuries, from the shores of West, West Central, and Southeastern Africa, an estimated 11 million men, women, and children came to the Americas. They came in the hulls of tightly-packed wooden ships traveling across the Atlantic from the areas of modern day Senegal, Guinea, Ghana, Nigeria, Congo, Angola, and Mozambique. In all, an estimated 400,000 enslaved human beings landed on the eastern seaboard of what is now the United States, mostly in the 18th and 19th centuries. Throughout their forced migration, men and women fought their enslavement in all possible ways, including fleeing when given an opportunity and resisting through force of arms—acts of desperation as much as expressions of their hopes and dreams.

Between 1819 and 1852, a century before the modern Civil Rights movement, African Americans and white Quakers here in North Carolina worked together to help enslaved people in the Piedmont escape to freedom. They fled to Indiana and Ohio, where they were welcomed by black and white allies. Figures like the Quaker cousins Levi and Vestal Coffin worked with Sol, a free African American, to shuttle people out of slavery through the Guilford forest. Others, like the enslaved young mother Ede and her baby, went into these woods as a form of protest. Whether using the forest for a few days as a maroon (fugitive slave) or continuing on a journey northwards, those involved in the Underground Railroad took life-threatening risks with every step in defiance of the institution of slavery and its brutal and violent daily and moment-to-moment practices. Many succeeded in reaching freedom. Some did not.
Ultimately, it would take force of arms to abolish slavery—the Civil War. The bloody war between the North and South raged on for four years, culminating with Union defeat of the Confederacy in 1865. The 13th Amendment to the U.S. Constitution was ratified, abolishing the enslavement of human beings in the nation. Upwards of 750,000 people died during those four years, with an estimated 250,000 of the casualties (about 1 in 3) dying of wounds and infections. Many of these casualties could have been prevented with penicillin, the life-saving antibiotic that revolutionized medicine in the century to come.

**Mycelial Networks**

A single teaspoon of soil contains more than one billion microbes. Indeed, every living surface is colonized with myriad organisms too miniscule to detect with the naked eye, bacteria, fungi, protozoa, algae. Humans rely on the organisms that make up our ‘microbiome’ for protection against pathogens and to help us digest our food. Similarly, without their microscopic symbionts, trees would quickly die.

Fungi play a particularly important role in a healthy forest. Mushrooms—sometimes delicious, sometimes deadly—are the fruiting bodies (that is, the reproductive organs) of fungi. No less important are the string-like fungal mycelia, which extend underground in vast, interconnected networks. Mycelia serve such critical functions as decomposing and recycling dead matter, and connecting the roots of trees with one-another, shuttling food, water, and nutrients, sometimes across great distances.

To compete for resources in a healthy forest, fungi secrete potent molecules that influence the other microbes living around them. One of these molecules is the antibiotic penicillin, discovered in 1928 by Alexander Fleming, which sparked the antibiotic revolution. A cousin of the fungus that makes penicillin was collected by Dr. Huzefa Raja and students from UNC Greensboro from a sample of outer bark from the Underground Railroad Tree in the Guilford forest. Meanwhile, students like Sabiba Hossain are studying the chemical compounds produced by fungi, seeking new cures for untreatable disease.
From networks of people who sustained humanity to mycelial networks sustaining forests, we are, one and all, inextricably connected. Indeed, the very oxygen you are breathing comes from trees inhaling the carbon dioxide we exhale. Come join us in this celebration of interconnectedness.

_The Underground Railroad Tree_ exhibit ran April 5-7, 2019 at 300 South Elm Street (next to Scuppernong Books). Reception held on April 5th 6:00-9:00 pm during First Friday, which included artwork, live music, talks, and performances by students and faculty. Free and open to the public.

_Images at top of article: Runaway Slave advertisement, Ede and her baby, Levi Coffin_
TIMELINE
(From the perspective of the tree)

1720—The tulip poplar takes root among the humans known as the Saura and Keyauwee peoples living in the area of Guilford forest

c.1750—Only a child, the tulip poplar witnesses the native American humans move away (further south) as their Euro-American counterparts (including English, Scots-Irish, Germans, and Quakers) begin moving into the area

1776—The humans, comprising English colonies across the eastern seaboard, "declare" their political independence--a concept akin to tree migration with ideological justification--the seeds of the Revolution for ‘freedom’ among humans are sown

1778—The Frenchman and founder of modern chemistry Antoine Lavoisier discovers oxygen, the compound that the tulip poplar exhales, and humans inhale; the humans have been cutting down the forests of North Carolina for two generations.

1798—Abolitionist and Quaker Levi Coffin is born in Guilford forest; in years to come his autobiography, Reminiscences, will be a key source in
understanding the network of humans known as the Underground Railroad

1800—Increasing numbers of enslaved 'black' people are brought into North Carolina from Virginia; humans think of themselves as distinct ‘races’ comprising ‘black’ and ‘white’ people, among others

c.1812—Ede, an enslaved woman, flees into the Guilford forest with her baby to protest separation from her family; Levi speaks on her behalf to her ‘owners’ David and Rachel Caldwell

1819—John Dimmery, with the help of other humans, is the first known fugitive on the Underground Railroad in Greensboro; he rushes through the woods as the tulip poplar, now a young adult tree, sheds branches and stretches towards the upper canopy of the forest

1830—The composition of the approximately 15,000 humans in "Guilford County" is 84% 'white,' 14% enslaved 'black,' and 2% free 'black'

1831—Sol, a free black man, helps guide dozens of enslaved people through Guilford forest with the assistance of Quaker allies; following Nat Turner’s Slave Rebellion in nearby Virginia, the North Carolina legislature (think elder humans in a council) makes it illegal to teach enslaved humans to read

1865—Enslavement among fellow humans is abolished through the 13th Amendment to the U.S Constitution (a document written on paper made out of felled trees among a dispersed series of forests of humans, such as North Carolina)

1920—Now a mature adult tree, the tulip poplar is actively sustaining infant trees via fungal mycelia, extending its widespread roots; water, nitrogen, and phosphorus travel these hidden underground networks
1928—The Scottish microbiologist Richard Fleming discovers penicillin G from *Penicillium notatum*, kin to the scores of fungi living in the Guilford forest; the seeds of the antibiotic revolution are sown

1945—Radiocarbon dating is proposed by the North American chemist Williard Libby; the technique allows humans to measure the approximate number of annual cycles of the Earth around the Sun; this methodology will eventually be used by humans to determine that the tulip poplar in the Guilford forest is >300 years old

1960—Young humans, including Joseph McNeil of North Carolina A&T, Emma Washington of Bennett College, and Marilyn Lott of UNC Greensboro, ignite the local civil rights movement by protesting racial segregation at the Woolworth’s in Greensboro; their actions culminate in the Voting Rights Act; meanwhile, Biologist Rachel Carson is completing her book *Silent Spring*, which will inspire the environmental movement

1998—Sabiba Hossain is born in Dhaka, Bangladesh; in years to come, she will immigrate to Greensboro where she will seek to develop new treatments for human disease using fungi living symbiotically within the now elderly tulip poplar tree

2019—Students visit the Guilford forest to read the words of humans who lived their lives in Greensboro and to collect living fungi from the bark of the great tulip poplar

—You are reading, hearing, feeling these words approximately 1.5 billion years after humans diverge from fungi in the tree of life; our mutual evolution continues as we develop, love, and grow together ...
Honor: Its Past, Present and Uncertain Future

Keynote Address, Convocation, Lloyd International Honors College, May 2, 2019
Jodi Bilinkoff, Department of History

I am deeply honored to have been asked to deliver this keynote address. My thanks go to Omar Ali and Angela Bolte for their invitation, and to Margaret Patton and the staff of the Lloyd International Honors College for organizing this superb Convocation. I would also like to thank my students in HSS 221-02H, “Famous Trials in History.” I decided to take advantage of the fact that I was teaching an Honors course this past semester, and first asked the students if I should accept this invitation. They urged me on, made suggestions, and helped to come up with a title for the talk. Thus, as my daughter noted, on this occasion I was able to make use of “crowd-sourcing.”

My students suggested that I refrain from using lots of clichés in my comments to the students being honored here this evening, such as acknowledging their countless hours of hard work, their almost limitless supply of intellectual curiosity and
creativity, their willingness to share and serve others, and their perseverance even in the face of adversity that surely makes their parents glow with pride. So, I won’t.

They also mentioned how obnoxious it was when a speaker spent the whole time talking about his or her own personal life. So, I won’t do that either, but I hope I may be permitted one small anecdote. I share this recollection because it helps to explain why I have been committed to teaching in and supporting UNCG’s Honors Program, then College, over nearly four decades. When I was an undergraduate student at the University of Michigan, I decided to do disciplinary honors in History. I really enjoyed the year I spent researching and writing an honors thesis but dreaded the prospect of typing the final version since I was a terrible typist. Yes, typing! On a typewriter, such as the ones now on display in museums. Fortunately, the UM Honors Program allowed seniors to apply for funds to hire a typist, which I did. They gave me $75.00 for this purpose, the first academic grant I ever received.

Being this deeply involved in honors programs has made me think a lot about the use of the words: “honors” and “honor.” I would like to spend the next few minutes sharing some of my reflections as a historian and an engaged citizen, then loop back to the students about whom I am not supposed to utter tired clichés (even if they are true!)
“Honor” is not a term commonly used these days, is it? Someone might express concern about his or her “reputation,” but “honor” seems hopelessly old-fashioned, like something out of the Tales of King Arthur. It certainly doesn’t seem relevant in the modern United States, with our emphases on innovation and outcomes, regardless of the background or character of the person producing the outcomes.

And, what is the opposite of “honor?” My students helpfully intoned “dishonor.” But, for many anthropologists and social historians the answer is “shame.” This word, I suggest, is similarly out of fashion, except in rather superficial usage such as “It’s a shame you can’t go to the movies tonight.”

Now, honor can be used in many ways, to connote respect, fame, privilege, morality, dignity and so forth, as the attribute of an individual. But I want to focus on the way honor and shame were historically understood in many societies. The work of the British anthropologist Julian Pitt-Rivers (1919-2001) has been particularly influential in my own sub-field, the history of early modern Spain. Pitt-Rivers carried out pioneering fieldwork in villages in Andalusia, in southern Spain in the 1950s. He published his findings in the ‘60s and ‘70s, placing them in the context of a more generalized Mediterranean culture.

In his formulation, honor and shame referred to the public recognition of a person’s social status within a community. That is, honor was ascribed by others, and others could withdraw it as well,
resulting in shame. Thus, maintaining one’s honor was paramount and could become an all-consuming preoccupation. Moreover, the persons busily acquiring and preserving their honor in these traditional cultures were virtually all men.

Indeed, one of the most important ways that men maintained their honor was by controlling the behavior of the women within their households, especially with respect to their sexual purity. A woman’s “shameful” reputation, real or perceived, could lead to a significant loss of honor for her father, brother, or husband. We can see these anxieties vividly projected in the work of sixteenth and seventeenth-century playwrights such as Shakespeare and, in Spain, Calderón de la Barca, in a genre that has come to be known as “honor plays.” In perhaps the most shocking of Calderón’s theatrical works, *The Surgeon of his Honor* (*El médico de su honor*) of 1637, a man who became convinced of his chaste wife’s infidelity restores his honor by having her bled to death.

This points to the deeply troubling association between honor and violence, frequently used against the women themselves (as in “honor killings”) or between aggrieved men as a way of restoring lost honor. Federico García Lorca, a native of the Andalusia studied by Pitt-Rivers, brilliantly explores these values in his 1932 play *Blood Wedding* (*Bodas de sangre*).

Given the historical connections between honor-shame cultures and strict social hierarchies, violence, and gender inequality, it’s no
wonder that we late twentieth and twenty-first-century people no longer wish to speak of honor (or shame). Good riddance! Yet, I find myself looking back at these past societies, not with nostalgia, but with a certain regard for how they functioned as self-regulating systems. In such a system, one needed to carefully attend to one’s words, actions, and relationships, for a misstep could lead to shame and the rapid loss of honor. At a time in which people routinely make statements that are truly stunning in their coarseness, hurtfulness, potential to incite violence, and sheer lack of accuracy, and not just to individuals, but to untold thousands via the internet, I contemplate a suitably updated and inclusive concept of honor that just might improve our collective physical, emotional, and moral health.

And, so, I ask the students who are about to graduate and go off into the world: What do you think? Does honor, and its countervailing force, shame, have a future? Could these ancient ideas, re-packaged and re-purposed, play a useful role in our global community?

As in all my history courses, I leave you with more questions, but also my sincere congratulations on your impressive achievements here at UNCG, and my very best wishes for your paths ahead.
References


Founded in 1897, The Honor Society of Phi Kappa Phi is the nation's oldest and most selective honor society for all academic disciplines. The organization inducts approximately 30,000 students, faculty, professional staff, and alumni annually from more than 300 select colleges and universities in North America and the Philippines. Membership is by invitation only to the top 10 percent of seniors and graduate students and 7.5 percent of juniors. Faculty, professional staff, and alumni who have achieved scholarly distinction also qualify. Since its founding, more than 1.5 million members have been initiated into the ranks of Phi Kappa Phi. Phi Kappa Phi awards nearly $1 million each year to qualifying students and members through study abroad grants, graduate fellowships, funding for post-baccalaureate development, member and chapter awards, and grants for local, national and international literacy initiatives.

The UNCG Chapter (#352) of The Honor Society of Phi Kappa Phi was established and installed on March 13, 2019 and welcomed its inaugural and founding class of Chapter members on April 11, 2019 and will welcome its second class in Fall 2019. For detailed information on the Society and the benefits of membership, please visit https://PhiKappaPhi.org.
UNC Greensboro-McNair Scholars Program

The UNCG-McNair Scholars Program (UNCG-McNair) is a federal TRiO program funded by the U.S. Department of Education. Designed to prepare undergraduate students for the pursuit of a Ph.D. UNCG-McNair provides 25 UNCG undergraduate students with opportunities to complete research with faculty mentors, attend the UNCG-McNair Summer Research Institute, explore graduate school options, and prepare for graduate-level studies. Ultimately, the goal of UNCG-McNair is to diversify faculty demographics across the nation by providing experience and training to students typically under-represented in the academy.

Benefits of the Program

- Mentoring from faculty and staff for graduate school preparation
- Financial planning for graduate school success
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- An empowering and supportive community
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Eligibility Requirements

To qualify for UNCG-McNair, you must:

- be a first-generation college student [parent(s)/guardian(s) do not have a 4-year college degree] AND come from a modest or low-income family (based on Dept. of Education’s Income Guidelines)
- OR, be a member of a group this is traditionally under-represented in graduate studies (African-American, Hispanic/Latino, Alaskan Native/American Indian, or Pacific Islander)

Website: studentsuccess.uncg.edu/uncg-mcnair-scholars-program
Seniors Completing Honors 2018-2019

LLOYD INTERNATIONAL HONORS COLLEGE

INTERNATIONAL HONORS

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Mary Kate Alova
Melat Ayalew
Caroline Bolin
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Sarah DiVasta
Alex Dunn
Sara Feggeler
Raven Ferguson
Amy Frink
Anna Gerteisen
Grace Gollmar
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Isaac Hawkins
Kriztina Heckert
Olivia Hewett
Judah Janssen
Abigail Klima
Nicole Labbe
Jarytza Linares
Brittany Lutton
Casey Melton
Faye Milford
Wendlassida Arianne Ouedraogo
Clayton Petty
Jamie Phelps
Jamie Reinschild
Trevor Richardson
Samaya Roary
Rachael Brooke Rockot
Ashley Rose
Kiersten Setzer
Sarah Shackelford
Meghan Starr
Patricia Tanzer
Alexandra Vidal
Hope Voorhees
Madeline Wilvers
Catherine Woodworth
DISCIPLINARY HONORS

Bryan School of Business and Economics
Consuela Simmons
Disciplinary Honors in Business Administration
“A Silent Cry in the Workplace: Abusive Supervision in Workplace Organizations”
Project Adviser: Dr. Jun Yang, Department of Management

Jason Voorheis
Disciplinary Honors in Information Systems and Supply Chain Management
“Applied AI: A Review of Real-world Uses of Artificial Intelligence”
Project Adviser: Dr. Indika Dissanayake, Department of Information Systems and Supply Chain Management

School of Health and Human Sciences
Aileen Dawkins
Disciplinary Honors in Recreation and Parks Management
“Impact of a Wellness Recovery Program on Balance for Individuals with Parkinson's Disease”
Project Adviser: Dr. Judy Kinney, Department of Community and Therapeutic Recreation

Sarah Gaskin
Disciplinary Honors in Speech Pathology and Audiology
“Comparing Data Gathered from SFBT Scaling and OASES-A Regarding Affective and Cognitive Aspects of Adults who Stutter”
Project Adviser: Dr. Robert Mayo, Department of Communication Sciences and Disorders
Keia Harris
Disciplinary Honors in Public Health Education
“Tobacco Ads: What Messages Are They Sending in Minority Communities?”
Project Adviser: Dr. Carrie Rosario, Department of Public Health Education

Michael Kress
Disciplinary Honors in Kinesiology
“Changes in Joint Angles from Virtual Reality Training Correlates with Foot Clearance Metrics”
Project Adviser: Dr. Christopher Rhea, Department of Kinesiology

Anna Schatz
Disciplinary Honors in Public Health Education
“How do CMS Quality Initiatives Line Up to U.S. Health Prevalence Data?”
Project Adviser: Professor Crystal Dixon, Department of Public Health Education

College of Visual and Performing Arts
Angelo Herrera
Disciplinary Honors in Drama
“Adan (a short film)”
Project Adviser: Professor Michael Flannery, School of Theatre

Sharneisha Joyner
Disciplinary Honors in Music Performance
“Classical Music Isn’t Dead: How to Format an Old Tradition for the Current Times”
Matthew Laird
Disciplinary Honors in Music Education
“Helping Students Expand Their Creative Voice”
Project Adviser: Dr. Rebecca MacLeod, School of Music

Mackenzie Mitchell
Disciplinary Honors in Studio Art
“Children's Book: Cars In Places”
Project Adviser: Professor Rachele Riley, School of Art

School of Nursing
Bobbie Darnell
Disciplinary Honors in Nursing
“Experiential Learning: Assisting with a Research Study Involving First-Time Mothers Deciding Whether to Use a Breast Pump”
Project Adviser: Professor Lori Hubbard, School of Nursing

Melissa Edwards
Disciplinary Honors in Nursing
“An Exploration in the Decision-Making Process for Nurses Who Enter a Doctoral Program”
Project Adviser: Dr. Leslie Davis, School of Nursing

William Futch
Disciplinary Honors in Nursing
“Providing Accommodations for Nursing Students with Learning Differences: Focus on Self-Advocacy”
Project Adviser: Professor Lori Hubbard, School of Nursing
Dre’Quan Lee
Disciplinary Honors in Nursing
“Preventing the Transmission of Methicillin-Resistant Staphylococcus Aureus in the Hospital Setting: Perspectives from Health Care Workers”
Project Adviser: Dr. Yolanda VanRiel, School of Nursing

Syvanna Makin
Disciplinary Honors in Nursing
“Assisting Nurses with Compassion Fatigue Resulting From Caring for Infants with Neonatal Abstinence Syndrome”
Project Adviser: Dr. Denise Cote-Arsenault, School of Nursing

Kayla Martin
Disciplinary Honors in Nursing
“The Lived Experience of Adults with Congenital Heart Disease”
Project Adviser: Professor Kay Cowen, School of Nursing

Megan Mead
Disciplinary Honors in Nursing
“Proposed Uses of Cannabis and Cannabis-Derivatives for Symptomatic Relief in Cancer Patients”
Project Adviser: Dr. Susan Letvak, School of Nursing

Courtney Phillips
Disciplinary Honors in Nursing
“Nurse Practitioner Knowledge and Use of Complementary and Alternative Therapies for the Management of Chronic Pain: A Pilot Study”
Project Adviser: Dr. Susan Letvak, School of Nursing
Sarah Pillsbury  
Disciplinary Honors in Nursing  
“Factors and Solutions to Decrease Burnout Among Nurses Working in the Emergency Department”  
Project Adviser: Dr. Cynthia Bacon, School of Nursing

Latraikeyonnia Pridgen  
Disciplinary Honors in Nursing  
“The Influence of Vitamin D Deficiency on Illness Severity in Children in the Pediatric Intensive Care Unit”  
Project Adviser: Professor Jennifer Wilson, School of Nursing

Marybeth Privette  
Disciplinary Honors in Nursing  
“Car Seat Safety and the Risks of Leaving a Child Unattended in a Car Seat”  
Project Adviser: Professor Kay Cowen, School of Nursing

Dominique Settles  
Disciplinary Honors in Nursing  
“Experiential Learning by Assisting with an Original Research Study”  
Project Adviser: Dr. Leslie Davis, School of Nursing

Kristine Simon  
Disciplinary Honors in Nursing  
“The Impact Food Insecurity Has on Health Outcomes: Implications for Registered Nurses”  
Project Adviser: Dr. Jacqueline DeBrew, School of Nursing
Brandon Smith
Disciplinary Honors in Nursing
“Selected Prevention Methods for Hyperglycemia in Community Dwelling Adults”
Project Adviser: Dr. Debra Wallace, School of Nursing

Evonne Wayne
Disciplinary Honors in Nursing
“Nursing Implications for the Use of Lavender in the Treatment of Anxiety”
Project Adviser: Professor Sandra Blaha, School of Nursing

Amanda Wenn
Disciplinary Honors in Nursing
“Nursing Education and Migraine Symptom Management”
Project Adviser: Dr. Robin Bartlett, School of Nursing

College of Arts and Sciences
Honora Ankong
Disciplinary Honors in English
“‘When the Masquerade Comes’, A Collection of Poetry by Honora Ankong”
Project Adviser: Professor Emilia Phillips, Department of English

Daniel Bayer
Disciplinary Honors in Communication Studies
“Intentional Living at 504: An Autoethnographic Account of the Impacts of Economic Inequality”
Project Adviser: Dr. Spoma Jovanovic, Department of Communication Studies
**Alexis Brunnert**
Disciplinary Honors in Media Studies
“The Life and Musical Career of David Hungate”
Project Adviser: Professor Kevin Wells, Department of Media Studies

**Kimberly Colon**
Disciplinary Honors in Psychology
“Stress Appraisals: Personal and Group Discrimination”
Project Adviser: Dr. Gabriela Livas Stein, Department of Psychology

**Madison DelRusso**
Disciplinary Honors in English
“Traitor and Tyrant: Agency in Translation and Authorship”
Project Adviser: Dr. Jennifer Keith, Department of English

**Kiersten Eury**
Disciplinary Honors in English
“Masculinity Under Assault: Homosociality in *Lady Chatterley’s Lover* and *The Great Gatsby*”
Project Adviser: Dr. Gary Lim, Department of English

**Bailey Hardin**
Disciplinary Honors in History
“Fighting for Their Rights: Indian Women and the Suffragette Movement”
Project Adviser: Dr. Jill Bender, Department of History

**Jonathan Harris**
Disciplinary Honors in Sociology
“Analyzing Inequalities: ‘Aid to and from Family Members by Immigrants in College’ using Quantitative Data Analysis”
Project Adviser: Dr. Arielle Kuperberg, Department of Sociology

**Melissa Hensch**  
Disciplinary Honors in Sociology  
“Do Spoken Word Events Create a Social Space That Facilitates Political Identity Exploration?”  
Project Adviser: Professor Aneliese Dar, Department of Sociology

**Kaitlyn Jessee**  
Disciplinary Honors in Geography  
“Predicting Vulnerable Areas for Hurricane Destruction in the Southeastern US”  
Project Adviser: Dr. Rick Bunch, Department of Geography, Environment and Sustainability

**Sarah Kassem**  
Disciplinary Honors in German  
“Identity Loss and Confusion in Divided Germany After the Holocaust”  
Project Adviser: Dr. Brooke Kreitinger, Department of Languages, Literatures, and Cultures

**Manead Khin**  
Disciplinary Honors in Chemistry  
“*Macleaya cordata* as a potential cure for MRSA”  
Project Adviser: Dr. Nadja Cech, Department of Chemistry and Biochemistry
Daniel James McLaughlin
Disciplinary Honors in Sociology
“How Do Mandatory Minimums and Determinate Sentencing Affect Judicial and Prosecutorial Discretion”
Project Adviser: Dr. Cindy Dollar, Department of Sociology

Ali Shahbandi
Disciplinary Honors in Biochemistry
“Bacterial Metabolite Profiling via Ultra High Performance Liquid Chromatography coupled to High Resolution Mass Spectrometry”
Project Adviser: Dr. Nadja Cech, Department of Chemistry and Biochemistry

Alexandra Smith
Disciplinary Honors in Psychology
“Emotion Regulation as a Protective Factor for Surgent Children with Social Difficulties”
Project Adviser: Dr. Susan Keane, Department of Psychology

Nicholas Smurthwaite
Disciplinary Honors in English
“Contemporary Hurston: Echoes of Issues Past and Present in Literature”
Project Adviser: Dr. Noelle Morrissette, Department of English

Marshall Tate
Disciplinary Honors in Psychology
“Is Depression Useful? Examining the Effects of Clinical Depression on Goal Adjustment Abilities”
Project Adviser: Dr. Paul Silvia, Department of Psychology
Yasmin Torres
Disciplinary Honors in Sociology
“The Effects of Socioeconomic Status Contributes to Health Disparities”
Project Adviser: Dr. Shelly Brown-Jeffy, Department of Sociology

Mitchell Townsend
Disciplinary Honors in Media Studies
“The Digital Age: How Streaming Services are Changing the Way Movies are Consumed and Distributed”
Project Adviser: Professor Kevin Wells, Department of Media Studies

Ariana Watkins
Disciplinary Honors in Psychology
“Can You See Me?”
Project Adviser: Dr. Gabriela Livas Stein, Department of Psychology

Molly Whitesides
Disciplinary Honors in Psychology
“Early Adversity and Trait Rumination in the Prediction of Depression Symptoms”
Project Adviser: Dr. Suzanne Vrshek-Schallhorn, Department of Psychology

Michael Williams
Disciplinary Honors in Psychology
“The Effects of Early Adversity on Stress Perception: An Investigation of Sensitization to Chronic Stress”
Project Adviser: Dr. Suzanne Vrshek-Schallhorn, Department of Psychology
FULL UNIVERSITY HONORS

Andrew Ainsworth
Full University Honors in English and Sociology
“The Social Demographics of School Shooters: Policy and Pedagogy in the Age of Columbine”
Project Adviser: Dr. Cindy Dollar, Department of Sociology

Bret Dang
Full University Honors in History and Religious Studies
“Shrines, Pilgrimages, and Competing Imperial Authorities of the Ottoman and Safavid Empires, 1500-1700 CE”
Project Adviser: Dr. Alyssa Gabbay, Department of Religious Studies

Kate Krupp
Full University Honors in Business Administration
“Unconscious Bias: The Challenge in Training Organizations”
Project Adviser: Dr. E. Holly Buttner, Department of Management

Shannon Lloyd
Full University Honors in Geography
Project Adviser: Dr. Jeffrey Patton, Department of Geography, Environment and Sustainability
Sarah Maske  
Full University Honors in History  
“A Place to Call Their Own: Space and Gender in the Y-Hut at North Carolina College for Women, 1918-1940s”  
Project Adviser: Dr. Lisa Tolbert, Department of History

Alexandra Romero  
Full University Honors in Art  
“The Artists' Manifestation of the Colonial Mindset in Postcolonial Vietnam and Morocco”  
Project Adviser: Dr. Elizabeth Perrill, School of Art

Evan Sachs  
Full University Honors in Classical Studies  
“Recei - To the King”  
Project Adviser: Dr. Hugh Parker, Department of Classical Studies

Nicole Saia  
Full University Honors in Nursing  
“Fear of Childbirth: A Comparison of Instruments Used to Measure the Phenomena”  
Project Adviser: Professor Lori Hubbard, School of Nursing

Alyssa Sanchez  
Full University Honors in Biochemistry  
“Anti-Hyaluronidase Activity of Botanical Extracts”  
Project Adviser: Dr. Nadja Cech, Department of Chemistry and Biochemistry
Megan Saunders
Full University Honors in Anthropology
“Taphonomic analysis of the excavated faunal assemblage from BK East at Olduvai Gorge, Tanzania”
Project Adviser: Dr. Charles Egeland, Department of Anthropology

Andrew Savage
Full University Honors in Music Performance
“Esemplastic Suite for Solo Piano”
Project Adviser: Dr. Alejandro Rutty, School of Music

Sarah Seyler
Full University Honors in Media Studies
“What Are You So Scared About?: Understanding the False Fear Response to Horror Films”
Project Adviser: Dr. Jeffrey Adams, Department of Media Studies

Amber Worthington
Full University Honors in Speech Pathology and Audiology
“The Effectiveness of Melodic Intonation Therapy with the Treatment of Childhood Apraxia of Speech”
Project Adviser: Dr. Virginia Hinton, Department of Communication Sciences and Disorders
Call for Submissions: Outstanding Student Papers

20th ANNUAL UNDERGRADUATE HONORS SYMPOSIUM

Friday, February 28, 2020
Elliott University Center

The Honors Symposium offers outstanding undergraduates the opportunity to participate in an academic conference with concurrent sessions. We welcome submissions from any UNCG undergraduate student or any Honors student from a North Carolina Honors Program or Honors College. Papers should be research-based and can be written in any discipline, but presentations should be geared toward a general audience. Students may submit a paper that has been completed for a course or write a paper for the Symposium. Students are allowed to submit more than one paper for consideration to the Symposium. A group of students may submit a presentation. December 2019 UNCG graduates are also allowed to submit papers for consideration to the Symposium.

Students can submit a paper by:
Submit your paper for consideration via Google Forms at: https://tinyurl.com/LIHCSymposium by December 20, 2019 at 11:55 p.m. Students should plan for a 10 to 15-minute summary presentation and Q&A to follow.

Faculty can get involved by:
• Suggesting a panel of student papers from one of your current courses.
• Encouraging students with excellent work to submit a paper.
• Offering to serve as session Chairs at the Symposium.
• Attending the Symposium, bringing your class to the Symposium, and encouraging students to attend individually as well.
• Create assignments for students in your spring courses that include attending the Symposium.

The Honors Symposium Prizes, sponsored by UNC Greensboro's Lloyd International Honors College, are awarded for outstanding papers submitted to the Symposium. This year prizes dedicated to the encouragement of high quality academic writing will include monetary awards of $250, $150, and $100 in one category for Visiting Honors students and in two categories for UNCG students: Arts & Humanities, and Sciences & Professional Schools. Award decisions are based on the papers submitted, not the presentation of the papers. Papers must be presented at the Symposium to be eligible for a prize.

There is no registration cost to present or attend. We encourage friends and family to attend as audience members. For more information about the Symposium, students and faculty may contact Dr. Angela Bolte, Assistant Dean in Lloyd International Honors College, at (336) 334-4734 or akbolte@uncg.edu.
Retirement of Margaret Patton

Congratulations on your retirement from Lloyd International Honors College! Margaret, you will be greatly missed. You have been a treasured colleague in helping us support our students, faculty, and staff thrive. We appreciate all that you have done over the years. Here’s to a wonderful retirement!

The Honors College Ensemble
Call For Papers

Y Ddraig Goch: An Interdisciplinary Honors Journal

On behalf of Lloyd International Honors College, you are invited to submit a paper for possible inclusion in the second issue of Y Ddraig Goch: An Interdisciplinary Honors Journal.¹

Y Ddraig Goch: An Interdisciplinary Honors Journal is published by Lloyd International Honors College of The University of North Carolina-Greensboro. The journal aims to provide a platform for interdisciplinary research at the undergraduate level. Submissions on all topics are welcome.

Submission Guidelines

For a submission to be considered, you must be granted permission by a faculty mentor. The name, department, and email of the Faculty mentor must be included. Papers must be no more than 1200-4500 words. Please include a cover page: title; author's name(s) as should appear in publication; name of department/program of study; abstract (300 words max). In general, your submission might include sections for an Abstract, Introduction, Methods, Results, Discussion, References, and Figures/Tables. Please use APA or Chicago citation. Writing should be clear, logical, and free from typographical or grammatical errors. You are responsible for copyediting your submission. All papers must include footnotes, a bibliography and an abstract. Papers may be submitted to Destiny Brooks at d_brook3@uncg.edu. Submission Deadline is September 20, 2019.

The Committee looks forward to receiving proposals in response to the call and is happy to respond to inquiries from interested parties.

Questions may be addressed to the editor, Destiny Brooks, via e-mail at d_brook3@uncg.edu.

¹ Y Ddraig Goch means “Red Dragon.” It is the symbol of Lloyd International Honors College. The College is named after Alumna Rebecca Lloyd, whose parents were of Welsh descent. The red dragon is part of the Welsh flag.