

# Carolyn M. Small HONORS Program

## 2011 POSTER SYMPOSIUM

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*All posters will be displayed 10:00AM – 4:00PM. Presenters will be available for questions during the 30 minute time slots shown below. Also, the number that appears in brackets is the location number.*

### **Congratulations to all presenters at the Fall Poster Symposium!**

\* denotes member of the Carolyn M. Small HONORS Program

#### **10:00am**

##### **Graham Linthorst: Autistic-Like [1]**

**Aubrie Ridinger, Courtney Swabb, Kellie Schnipke**

This project will focus on the childhood development of Ghram Linthorst and the way his autism diagnosis affected his family. By focusing on the characteristics of autism, intervention and therapy treatments, as well as services that accompany a child diagnosed with autism our project will shed light on the idea of how autistic-like traits can influence the life of not just the child but his surroundings as well.

##### **Evaluation of Pathogenesis of E. Coli [13]**

**Bryan Gall\***

A systemic look into the pathogenesis of the enterotoxin Escherichia Coli O157:H7 serotype from infection to adhesion to symptom development.

##### **Redefining Normal [25]**

**Mallory Gebers\*, Brittany Meyer, Janis Wilkinson**

There are a lot of differences between a normally functioning individual and an individual who has autism. Day to day tasks for an individual with autism are drastically different than a “normal” individual. These differences will be explained and looked through the use of a real life and video examples.

##### **Italian Fountains: A Journey Beyond the Water [37]**

**Brittany Heaton\***

Fountains are a staple in the cities of Italy, with reflections of the architectural styles of the country. They emphasize the power of water, and the sculptures show insight into culture of the regions. The lack of notable fountains in the city of Venice is also taken into account.

##### **Interventions & Treatments for Autism [49]**

**Kyleigh Meeker-Blad, Kendra Krill**

Our poster will present different interventions and/or treatments for individuals that suffer from Autism Spectrum Disorder. It will also display pictures of children and adolescents with Autism.

### **Solar Sail Travel [59]**

**Todd Odell**

Due to the high dependence on fuel, NASA is looking for an alternate source of power for satellites. Solar Sails are 100% energy efficient that can be used for long distance travel and significantly cut down on fuel assumption. From the poster the set-up of the solar sail is discussed as well as the concept of how they function in space.

**10:30am**

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### **Automobile Fuel Efficiency [2]**

**Lisa Brophy**

Fuel efficiency has improved immensely in our country over the years. However, there are large gains that could be made in making automobiles more efficient. There are many factors to consider when making automobiles more fuel efficient such as weight, aerodynamic drag, mechanical efficiency, rolling resistance, acceleration, and speed. In automobiles, almost all energy is simply wasted, so one great place to start in further research is to simply waste less.

### **Defiance College's Mammal Collection: Bringing Dead Animals Back to Life. [14]**

**Phoenix Golnick\***

The purpose of this project was to digitize Defiance College's 50 year old Mammal Collection by entering scientific names, common names, locations, sex, measurements, and collectors. This will potentially allow easy access for future research to be conducted.

### **GRACE: A Physical Phenomenon [26]**

**Brittany Heaton\***

A briefing about how the physics behind gravity can provide valuable information to multiple areas of study throughout the world. Information is gleaned from twin satellites orbiting the Earth, known as GRACE. They collected data on the gravitational forces surrounding Earth, which enables changes in water levels, underground tunnels, and undiscovered oil to be located.

### **Fukushima Daiichi Nuclear Plant: The next Chernobyl? [38]**

**Alex Puente**

The earthquake that rocked the world on Friday March 11<sup>th</sup>, 2011 measured at 9.0 on the Richter scale, forever changed the way the Earth looks, create one of the largest tsunamis on the record, and set in motion what could end up to be the largest nuclear disaster since Chernobyl. How a nuclear reactor works, what is going wrong with the reactors now, the best and worst case scenarios, and what can a person actually do to lower their risk of radiation exposure are all the topics that will be discussed.

## **Nuclear Medicine [50]**

### **Alex Thiel**

Nuclear medicine is a vast and expanding area of medicine that focuses specifically on the use of radioactive materials called radiopharmaceuticals, or radiotracers to image the body in order to detect and eventually treat several diseases and conditions including cancer and conditions associated with the cardiovascular and nervous systems, among others. Radioactive signals called gamma rays are emitted by the radiotracers in the body and detected by a PET (Positron Emission Tomography) scanner. The radiotracers accumulate in the area of interest in the body, allowing doctors to investigate discrepancies in metabolic function and to then formulate a diagnosis or treatment.

## **Nuclear Fusion [60]**

### **Mark Vandevender**

Nuclear Fusion is a very important area in physics in which two atoms are brought together to form one larger atom. This is a difficult process due to the fact that the protons in the atom's nucleus are positively charged and repel each other. The atoms must be brought to extreme speeds to get past this repulsion. An extreme risk to this fusion is that if something goes wrong then there will be a nuclear explosion. A benefit to nuclear fusion is that the output of energy is several times larger than the energy put into the fusion.

**11:00am**

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## **Rigoberta Menchu [3]**

### **Tyler Anderson, Jake Heiliger, Mike Hill**

The poster is about Rigoberta Menchu and we will have the poster board arranged like so. At the top in the center piece will be her name big and bold with a bio and story line about her life underneath that and her picture. We will include what her accomplishments were such as the Nobel Peace Prize. The board will also have things such as her spirituality and how she used it to make her world a better place or at least how she tried. Pictures that will be on the board will represent her boldness and strength that she shows in her actions.

## **Buon Appetito! [15]**

### **Brittany Coats\***

What is better than eating delicious real Italian pasta throughout the country of Italy itself? In visiting Rome, Florence, and Venice, I compared the different types of sauces used in pasta to determine if there is a correlation between geographic location and what sauce is used. Is the pasta you order in Rome the same as the pasta you would order in Venice or Florence, and why or why not?

## **Changing the Face of War [27]**

### **Jacob Harrigal**

In history, there have been plenty of innovations that have changed the face of war forever. One such time in history was the Great War, better known as World War I. In this epic struggle for global control, two sides work to keep an interlocking hold on the battlefield by demoralizing the terrain enough and beating the wits of the other side. Tactics were created, along with inventions of offense and defense on the battlefield. This poster will show how the First World War changed the way war would be played out forever by innovations through technology, weaponry, and strategy.

### **Industrial/Organizational Psychology at Work [39]**

**Amanda Johnson\***

The purpose of this project was to design an inpatient mental health facility for adolescents. To complete the project, many different aspects of industrial/organizational psychology had to be taken into account such as: the population served, how the environment will serve the population, details about the environment like room color, flooring, lighting, size of rooms, size of hallways, disability access, staffing needs, and projected cost. Research had to be conducted to determine the most effective and up to date techniques dealing with building an inpatient mental health facility for adolescents.

### **Art Theft and the Nazi Party [51]**

**David Riley**

My topic will deal with the National Socialist party of Germany during the lead up to and actual time period of the Second World War. The topic will revolve around the suspected and proven fact of Art theft during the war time period by the Nazi Party during their occupation of foreign lands. The theft of many of the world's foremost artistic works were stolen then hidden by many of the highest ranking officials in the national Socialist party for multiple reasons including the eradication of cultures, to act as a morale breaking in occupied countries and to instill fear and power throughout Europe by controlling much of the world's most famous and priceless artistic works.

### **DIR/Floor Time Therapy [61]**

**Amanda Willitzer**

I will describe what DIR therapy/floor time is and how it is helpful for children who have autism. I will also show some example that take place during DIR therapy.

**11:30am**

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### **Treading Turbulent Organizational Waters: Navigating through the Storms of Organizational Crises [4]**

**Treasure Bacon\***

This project focuses upon crisis situations within organizational settings. A handful of specific organizational crisis situations will be examined. Hallmarks indicating the effective management of organizational crises will also be highlighted.

### **Autism Diagnosis...Taking a Closer Look [16]**

**Kellie Cooper, Megan Nicholson**

We are going to talk about the warning signs of autism and how it is diagnosed.

### **The Anterior Cruciate Ligament [28]**

**Kelsey Ferguson\***

The anterior cruciate ligament (ACL) is one of the four main ligaments within the knee. The ligament is often injured or torn in athletes and non-athletes. There are many different ways the ACL can become damaged. This can cause several problems within the knee since the person will lose a great amount of stability when this occurs. In order to repair the ACL, surgery will be a necessary followed by an intense rehabilitation program to help gain back strength and stability of the knee and affected muscles.

**Italy's Piazzas [40]****Kirsten Frissora\***

The comparison of the different piazzas in Italy, targeting one in each of the cities visited: the Piazza Navona in Rome, Saint Mark's square in Venice, and Signoria Square in Florence. I am expecting that Piazza Navona will be the most extravagant because it is in the country's capital and the other two will not be as lavish, but still an amazing site to see.

**The UN in Action [52]****Dustin Manson**

I am looking at the United Nations and its development over the last 65 years. The United Nations has been involved in many wars and disputes and has been a factor in the post war politics of the involved nations. The United Nations also has had other factors such as racism and genocide to deal with such as the present conflict occurring in Libya. I will be looking into how all of these factors have developed the United Nations into the UN that it is today.

**Autism Support Group [62]****Laura Schiffer**

I will be looking at the autism support group that has been started by Dawn Comer.

**12:00 pm**

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**The Effects of Cybercrime [5]****Matthew Coons\***

My poster will focus on the effects of cybercrime. I will gather academic resources focusing on the effects of cybercrime and present on the findings of these resources. The resources I use will be taken from a 10 page research paper that I am required to complete in CJ155. The academic resources I use will be produced by professionals working in the Cybercrime field.

**Applications of Solar Energy: A bright Future [17]****Joshua Hegemier**

In today's society, there is a high demand for energy to power homes, cars, businesses, etc... And the natural resources from our Earth are being depleted at an alarming rate. Therefore, clean & reusable energy is greatly needed to sustain our global needs. Green energy such as solar power can generate many new jobs and provide an alternative to burning fossil fuels with an infinite number of possible applications in today's society.

**The Nuremberg Trials of the Nazi Regime [29]****Dan Nowakowski**

Twenty-Four Nazi party members were put on trial to face their crimes before and during the war. The trial took place in the Nuremberg Germany, which was the capital for the Nazi party. The allied Powers resided over the trial as judges. The outcome of the trial was that 19 members of the Nazi party were executed, 3 were acquitted and the rest were jailed.

**A Day In The Life of... [41]****Cindy Obermyer, Kristen Nicely, and Sarah Hornish**

We are going to present our poster by showing a day in the life of one of the students in the Autism classroom. We will show how their day is a lot like someone without Autism.

## **Hidden meanings: Architecture and Symbolism of Churches, Cathedrals and Basilicas in Italy [53]**

**Thomas Studer\***

This poster discusses the architectural attributes of churches, cathedrals and basilicas while on location in Rome, Florence, and Venice Italy. Comparison and contrast was done to identify aspects of Romanesque, gothic and renaissance styles as well as hidden meanings behind observed symbols, statues and various forms of architectural styles. In addition a specific focus was done in the context of St Peters' Basilica in Rome Italy.

**12:30pm**

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## **The Hewlett-Packard Corporation [6]**

**Anthony Brown\***

After doing a great deal of research on the Hewlett-Packard Corporation, often known as HP, and its many contributions to not only technology, but to other innovations, I wanted to present my findings in a poster. I will be talking about HP's history, HP's creations and innovations, and HP's organizational structure.

## **The Forces Needed to Stay on the Path [18]**

**Aaron Fraley**

Safety of automobiles has greatly improved over the decades of production, but some safety can't come from manufactures. Everyone's felt the centripetal force as they've turned the corner in a car. When this force is overcome the car lifts off the ground and rolls through the turn instead of drives. Using velocity, steering angles, center of gravity, and other latitudinal and longitudinal forces these forces of catastrophic aftermath can kept as a safe ratio.

## **Campaniles in Italy [30]**

**Courtnie Vaughan\***

Campaniles also known as Bell Towers are very popular within Italy. Many of the towers are hundreds of years old. These towers were built many years ago for different reasons. Today these towers are main attractions around Italy.

## **Welthauptstadt: The World Capital [42]**

**Josh Wade**

Just before the beginning of WWII Hitler had plans to make Berlin the greatest city in the entire world. It was going to be the world capital in his eyes. The city was under construction and then WWII broke out, the city was never finished because Hitler and the Nazis were defeated in WWII. The things that were built for the city still remain today, even though Hitler never got really far. Models of the entire city still exist today and it is just a wonder if a city of this magnitude could have been built. It would have included a 400,000 seat stadium, an arch that would have fit the Arch De Triomphe inside of it, and other massive buildings.

**1:00pm**

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**Thich Nhat Hanh [7]**

**Melissa Alston, Alexandra Johnson and Nate White**

By the age of sixteen, Thich Nhat Hanh was a monk in Vietnam who wanted peace spread among those who he spoke to, and those reading his published writings. After traveling around many places in the world and returning to his homeland, Hanh found his life very challenging when he was ordered to leave the country. Hanh found himself not worrying about his life, but worrying about the refugees in his homeland. Through he was exiled; it did not stop him from trying to continue his ways of spreading peace.

**Symbolism in Italian Art [19]**

**Bryant Green\***

Italian art is a unique language in which artists use symbolism to communicate vivid settings for their audience. Learn to decipher this coded language and understand and develop a new appreciation for this language.

**Elie Wiesel [31]**

**Mallory Faling, Marlea Rolander, and Leslieann Wheeler**

Elie Wiesel is an international humanitarian. At the age of 15, Elie had the tragic experience of being taken to one of the Holocaust concentration camps. Through the survival of this horrible experience, Elie has authored over 35 books, including novels, short stories, essays, plays, and a cantata. As well as becoming a teacher, he has lived his life as a social activist, speaking out as a voice for the oppressed and persecuted.

**Marian Wright Edelman [43]**

**Brandan Geise, Juli Lawrence**

Marian Wright Edelman is known for many accomplishments in her life, but she is best known for her work with NAACP and establishing the Children's Defense Fund. This helped reform the way child care and adoption agencies are run today. She continues to advocate youth pregnancy prevention, child care, and greater parental responsibility in teaching values she, herself, was taught.

**The Life of Joanna Macy [54]**

**Laressa McCurdy, Nittaya Major, Kyle Longsdorf**

Joanna Macy's life began when she was born in Los Angeles as Joanna Rogers in the year 1929. She grew up in New York. Later she left her religion, married, and moved to many different areas of the world. In these places she became active with her husband in the Peace Corps, a civil rights activist, an activist against the use of nuclear material, and was interested in Buddhist teachings such as metta. Along this journey she became more in touch with her religious being again and also wrote books one being "In League with the Beings of the Future."

**Vine Deloria, Jr. [63]**

**Sammi Stevens\*, Trisha Denniston, Kyle Johnson**

Our poster will talk about life of Vine Deloria, Jr. and how they used spirituality to help them through tough events in their lives.

1:30pm

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### **The Life Teachings of Simone Weil [8]**

**Aaron Choice, Rashad Hunt, Terrence Plummer**

Simone Weil- Born in Paris in 1909 to a middle class Jewish family. Despite being born into a Jewish family, she was brought up without religious beliefs. She strived to create relation between herself and the less fortunate. Her goal was to make issues of poverty important to the public.

### **Howard Thurman [20]**

**Christina Olinger, Kevin Beier, Cody Agler**

Our poster presentation is about the life and works of Howard Thurman. He was a preacher and made a renowned difference in the life of many others. It all started when he was a boy and went to church looking for what he called to become a Christian. His mother and grandmother had found that the church told him not to come back until he had become a true Christian. From this point fourth, after his grandmother and mother established that he were a Christian, he had a life changing experience. When he first went to college, he actually was not attracted to becoming a preacher but decided since he loved taking religion classes and health. He inspired many life changing and people.

### **Adult Rehab [32]**

**Alexandra Smith\***

Compare and contrast of rehab of adult offenders in the U.S. and another country with the breakdown of costs and effectiveness of both countries.

### **DC Global/ Business and Allied Health [44]**

**Cord Speelman\***

DC Global is a program that expands the opportunities in international travel for upcoming freshman in the future years. There are still details that need worked out, but this can be a great opportunity for broadening the education of students from Defiance College on an international level.

### **Physics Behind a Daisy Cutter Bomb [55]**

**Zach Stallkamp**

The physical nature of a "Daisy Cutter" bomb.

### **Dorothy Day: American Socialist and Journalist [64]**

**Becky Young, Matt Schroeder, and Sammi Stevens\***

Dorothy Day was born in 1897 and grew u to be a journalist. When she went to college she didn't agree with their views on religion because their were not helping the poor and ended up dropping out a couple years later. She worked at the Catholic Worker newspaper and promoted teachings that started the Catholic Worker movement. She then served her time in prison for protesting outside the White House. When she came back she showed a strong interest in the Catholic Church and was given the pacem in terries award which mean "Peace on Earth."



**2:00pm**

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**Germany Before and After WWII [9]**

**Brent Achtyes**

My poster will display images and information that I have gained from studying Germany.

**The Wartburg Festival [21]**

**Mark Goebel**

I will be presenting my poster on the first Waterburg festival of 1817 which was a student uprising and book burning in Germany

**Teaching Continental Drifts: Tectonic Plates [33]**

**Adam Grillot\***

Tectonic plates are the extreme forces that have constantly moved Earth's continents throughout its history. I will be teaching and demonstrating examples of tectonic plates that high school students will be able to grasp and understand about the formations of basins and mountain ranges found on Earth.

**Earth Observational Satellites [45]**

**Brian Jones**

Earth observational satellites orbit the earth studying land, biosphere, solid earth, atmosphere, and oceans. Through this process scientists can study Earth and use this information to help further sustain life on this planet.

**Filling in the Blanks on 9/11 [56]**

**Amanda Snow\***

The novel Falling Man, by Don DeLillo, and the film United 93 by Paul Greengrass are both different accounts and interpretations of what occurred on the tragic day known around the world as 9/11. Both author DeLillo and director Greengrass have issues with credibility and validity in each of their pieces. Through comparing and contrasting both the film and the novel against each one another, it will be possible to view the various flaws within both the film and the novel.

**2:30pm**

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**Injuries of the Ankle [10]**

**Gretel Briand\***

My poster will discuss ankle taping and injuries that need ankle taping. Also I will briefly show how to tape an ankle with diagrams. The poster will explain why injured ankles need to be taped and the mechanism of injury it is preventing.

**Holocaust vs. Rwanda Genocide [22]**

**Krystal Mull\***

This presentation is about the Holocaust and the Rwanda genocide. It contains information such as the who, the what, the where, the when, the why, and the how of both genocides.

### **The Artful Warrior [34]**

#### **Peggy Palmer**

My topic is the Japanese netsuke and the Japanese warrior who displayed it. These netsuke's were small objects formed in many different shapes, and made out of just as many different materials. They were worn on the kimonos of the Japanese man from 1615 to 1868. They attached at the waist and were used to carry the men's personal things. Through examining the netsukes that have been retrieved from history, we have learned a lot about Japanese culture and family life, as well as some personal preferences of its owner. They are formed out of many different materials and painted. Some are carved out of wood or ivory. These small objects can even show the owner's mood on a daily basis, because the netsuke was sometimes a face displaying certain emotions of sadness or happiness for instance. I will display drawings of the netsuke and provide additional information about the Japanese warrior.

### **Electric Car [46]**

#### **Zach Polzin**

The focus of this poster is on electric cars. It is a discussion of the history and advancements in this field as well as a comparison somewhat to other technologies. This will be in a form to represent something to be displayed to a politician or a common person.

### **The Physics Behind Tornadoes [57]**

#### **Sarah Tucker**

Tornadoes are natural disasters that swipe across the United States each year. More than 1,000 tornadoes occur in the US each year, making it the country with the highest occurrence in the world. A tornado is air currents that spin in a counterclockwise direction with varying pressures inside and outside the funnel that cause a vacuum. By going into detail and being able to understand how a tornado works and how it forms will help meteorologist better predict and warn citizens before the storm strikes. Also if tornadoes are understood, houses and buildings can be built differently to withstand them.

**3:00pm**

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### **Fiber Optics [11]**

#### **Allie Beck\***

New innovations are happening all of the time. A new, reliable method of getting information from one point to another is the use of fiber optics. Fiber optics are wires that can be as thin as hairs, made from glass or plastic, buried underground or under the ocean floor. They can be used in telecommunications, traffic systems, medical and mechanical imaging, and plumbing. To utilize this useful form of technology to the fullest, leaders of America need to understand how fiber optics work to help a useful method of communication be put in place and advance the future.

### **Hybrid Automobiles [23]**

#### **Vicki Fein**

The emergence of hybrid automobile technology has obtained objectives of improved fuel economy, increased power, and less pollution. These objectives have been achieved by using technologies such as regenerative braking, electric motors drive, and automatic start/shut off. The use of two motors, an electric and a gasoline powered allows for a smaller, less powerful gas engine, which improves the fuel efficiency. Hybrids also cut emissions by 25 to 35% which shows the importance of learning the physics behind this technology to continue advancing and benefitting our environment.

### **Biofuels [35]**

**Kayla Gawronski**

This presentation will cover the important highlights of biofuel technology, specifically the physics behind the science. The main topics discussed will be the concepts and ideas that the President of the United States would be briefed on and expected to understand.

### **A Sociological Look at the HIV/AIDS Epidemic [47]**

**Jerika Hennes\***

A sociological look at the HIV/AIDS epidemic in both the history of the illness and the current awareness and cure efforts. This project ties into SO:120 Life in Society because HIV/AIDS has been discussed vaguely in class, and it allows the different sociological viewpoints to be viewed in a real life example.

### **The Implications of the Dutch East India Company and Dutch Artistic Styles from the 17<sup>th</sup> to 18<sup>th</sup> Centuries [58]**

**Andrew Pratt\***

This poster will present the influences of the Dutch East India Company (or the VOC in Dutch) and trade with China in the 17<sup>th</sup> and 18<sup>th</sup> Century Dutch artwork. Johan Neuhof and others began producing new styles of artistic form in both the Netherlands and the rest of Europe. Through advancements in trade routes to China through the Dutch East Indies, European imperialists began developing a novel artistic style that combined traditional Asian and European art conventions known as chinoiserie.

## **3:30pm**

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### **Weather's Effect on Friction and Driving Conditions [12]**

**Bryce Baker**

Driving may seem like an easy task until the weather turns for the worst. Understanding how friction works can save you hundreds of dollars in repairs if you take the proper precautions to ensure that your car is safe to drive in wet or even winter weather. It is common sense that a wet surface is more slippery than dry surfaces but do not understand why it becomes more slippery, how increasing your car's weight, or how switching snow tires works.

### **The Bridges of Italy [24]**

**Jordan Heiliger\***

In Italy, there are hundreds of bridges spanning over hundreds of canals. During my trip there, I located one major bridge in the cities of Rome, Venice, and Florence. In Rome there is the Ponte Vittorio Emanuele II, Venice contains the Ponte di Rialto, and Florence's main attraction is the Ponte Vecchio. Each bridge is important to its city for various reasons whether it's a tourist attraction or historically valuable. All three of the bridges discussed in my presentation play a major role in the country of Italy.

### **Rise and Decline of the Ming Dynasty [36]**

**David Krouse**

My poster will focus on the significant events of Ming China that defined Chinese civilization and world history such as the Ming treasure fleet, interaction with the west, proto-capitalist economy, the forbidden city, Jesuits, Matteo Ricci, etc... It will provide a time line and sub-subjects. The objective will be to educate people about the Ming Dynasty and its impact on the world.

## **The German Forty-Eighters Immigration to America [48]**

**Debbie Rohlf**

My topic for the McMaster Honors Symposium is the German Forty-Eighters in America. I will examine the reasons that so many Germans left their homeland for America during the late Nineteenth Century. I will also address some of the cultural characteristics of the German people, and the cultural and social adjustments that immigrants encountered upon their arrival in the United States. I plan to present some background information of Bavaria, Germany as this was one of the German territories that was experiencing emigration due to economic, political, and social unrest.

Our Thanks to all our judges – Jan Becthel, Alesia Yakos-Brown, Don Buerk, Deb Dalke, MC Harper, Rebecca Sanford, Kristin Sorensen, and Carolyn Walters.

Our thanks to all the students who worked diligently on the program – Matt Coons, Lynn Haller, Kelly Beard, and Brittany Wildman.