Faculty Forum President’s Letter

*It is the glory of God to conceal things, but the glory of kings is to search things out.*

Proverbs 25:2

As the Christian scholar-teacher engages in the “glory of kings,” leads his or her students in the same venture, and thereby glorifies God, it is fitting that the Faculty Forum of Union University, a premier Christian university, publishes a journal of scholarship of its faculty. It is, therefore, my privilege as President of Faculty Forum to introduce this volume, the Fall 2009 Edition of the *Journal of the Union Faculty Forum*.

The LORD, maker of heaven and earth, is the Author of creation and the Redeemer of mankind. The creative and purposeful work of this journal is but a dim (but, we trust, honorable) reflection of His work. And as the papers of the *JUFF* represent the broad range of Christian scholarship at Union University, they illustrate the unity in diversity that is God’s truth.

Please join Beverly Absher (Forum Vice President), Gavin Richardson (Forum Secretary), and me in thanking the contributors. Many thanks also to Janna Chance, as the *JUFF* editor, for her excellent work. I invite you to learn with the scholars whose work is in this journal, to contribute to it in the future, and to participate in Faculty Forum.

—Randal S. Schwindt
A Word from the Editor

It has been both a pleasure and a challenge to assume the editorship of this year’s Journal of the Union Faculty Forum. Ironically, my joys and struggles with JUFF have stemmed from the same aspect of the journal: the incredible diversity of scholarship that it publishes. Although an editorial challenge and a likely challenge for many readers, JUFF’s breadth is precisely what makes it special as a journal. More so than any other work, JUFF offers a snapshot of the rich, diverse, Christ-centered scholarship being conducted every day at Union University.

This year’s JUFF begins with five scholarly articles representing the disciplines of education, history, physics, chemistry, and mathematics, respectively. Three creative writing sequences follow these more traditional scholarly articles. I especially invite you to enjoy the visual images that Kenneth Newman and Chris Nadasky have interspersed among their poetry. Nadasky’s pictures, which are actually photographs of relief sculptures, are particularly noteworthy in that (as far as I know) they are the first sculptures to appear in JUFF.

This twenty-ninth volume would not have been possible without the hard work of many people. Please join me in thanking University Communications for printing and the Provost’s Office for funding JUFF. I am also indebted to former JUFF editors, Roger Stanley and Beverly Absher, for graciously answering my many questions; to my student workers for assisting me with proofreading; and to my computer programmer husband, Nathan Chance, for helping me with the electronic formatting of this document. A final thanks must also go out to this year’s JUFF contributors for generously sharing their work with all of us.

—Janna Chance
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Developing a Christian Worldview of Children’s Literature

by Carrie Whaley

An education should help a person become like God and live in God’s world, training both the intellect and the imagination. (Milton, Of Education)

It is an accepted fact that literature has tremendous value for children. Unlike other forms of media, literature typically includes another human being with whom the story is shared. It serves to help children connect to both the people sharing the story and the people within the story. It allows them to look at the world through someone else’s eyes. Because literature provides a window to the world and to children’s lives, it is important to be intentional about the books that we read to them.

History of Children’s Literature

Historically, children’s literature has reflected the attitudes of adults toward children. Over the past 600 years, it seems that children’s literature has changed as it has moved through five distinct time periods, each denoting a significant change in the perception of childhood.

- Prior to the 15th century, children were thought of as little adults, thus the literature themes were austere and preachy. Consistent with the times, literature was written or told to teach morals and to instruct. During this time, literature was primarily transmitted orally as people traveled or shared events. With the advent of the printing press, things began to change. Chapbooks, primitively printed booklets, which included Robin Hood, King Arthur, and “Froggie Went A Courting,” were sold by peddlers for pennies. These became very popular and eventually broke the didactic trend. Gradually, as time passed and attitudes changed, children’s literature developed more entertaining, carefree themes.

- The 17th Century saw a change in expectations of children. No longer were they considered little adults, but rather children who could not be expected to act and think like adults. An example of a 17th century book written for children is entitled Spiritual Milk for Boston Babes in Either England, Drawn from the Breasts of Both Testaments for Their Souls’ Nourishment, by Joseph Cotton (1646). With a title like this, it is difficult to think of it as light reading for the young child; however, it was a movement in favor of childhood. This movement was furthered by Johann Comenius’ Orbis Pictus (The World in Pictures), the first children’s picture book; and by Charles Perrault, French author and collector of fairy tales, who published Tales of Mother Goose.

- By the 18th century, a further shift in attitude from one of didactic teaching to one of entertainment occurred in children’s books. With the popularity of the Chapbooks, John Newbery decided to publish books for young readers. His first publication in
1744, *A Pretty Little Pocket-Book*, taught the alphabet with entertaining games, rhymes and fables. He wrote many stories and books and did much to break the didactic influence in children’s literature, although moralistic tales continued to dominate.

- During the first part of the 19th century, the Grimm brothers and later Hans Christian Anderson produced collections of German folk and fairy tales that included “Snow White,” “Rumpelstiltskin,” the “Ugly Duckling,” and “The Emperor’s New Clothes.” Illustrations began to find a place of importance in children’s literature, and both collections are richly illustrated. The latter part of the 19th century included such notable works as Lewis Carroll’s *Alice’s Adventures in Wonderland*, Louisa May Alcott’s *Little Women*, and Mark Twain’s *The Adventures of Tom Sawyer*.

- During the early 20th century, great American stories like *Millions of Cats* by Wanda Gag (America’s first picture book), Margaret Wise Brown’s *Goodnight Moon*, and Robert McCloskey’s *Make Way for Ducklings* were published. Other endearing classics of this period include E. B. White’s *Charlotte’s Web* and C. S. Lewis’ *The Lion, The Witch and the Wardrobe*.

- Beginning as a gradual departure from didactic moralistic stories, during the second half of the 20th century, drastic changes occurred as realism in themes and cultural variety were introduced to children’s literature. No longer were authors, illustrators, and themes limited to white, Anglo-Saxon interests; all cultures were represented. Titles and authors for this period include Maurice Sendak’s *Where the Wild Things Are*, Ezra Jack Keats’ *The Snowy Day*, and Judy Blum’s *Are you There God: It’s Me, Margaret*.

- As we move into the 21st century, children’s literature continues to reflect adult expectations. But now, through research and education, we expect children to have child-like ways; thus, the literature reflects that playful, mischievous quality absent in the past.

**Truth and Beauty in Children’s Literature**

Louise Rosenblatt (Cox, 2008) applied the terms *effe rent* and *aesthetic* to the stances that readers take when reading a piece of literature. In the efferent stance, readers approach the work with a *didactic* purpose—that of teaching, of revealing truth to the reader. This is particularly true of literature such as Bunyan’s *Pilgrim’s Progress* that teaches Christian truth. Such books are in contrast to other types of literature that frequently do not present a Christian view of reality, or even contradict Christian truth. Therefore, literature—although it may claim to be—cannot be a teacher of truth. Ryken (1979) suggests a model to reject:

\[
\text{Literature} = \text{truth} \rightarrow \text{reader} \rightarrow \text{life/worldview}
\]

Literature (equated with truth) instructs the reader, who incorporates what literature teaches him into his life/worldview. Literature must not inform or determine our worldview. On the contrary, our worldview should help us to interpret the literature we read. The model Ryken suggested we embrace looks like this:

\[
\text{Biblical truth} \rightarrow \text{reader/worldview} \rightarrow \text{literature}
\]
The Christian reader finds his worldview in Biblical truth, which is then applied to literature.

The aesthetic stance that Rosenblatt proposed refers to the experiences that the reader brings to the piece of literature, including pleasure in the work and the disposition for reading the piece. Although books for children were originally written from the didactic stance for instructive purposes—and still today Christian literature is read for the truth it contains—any literature can be enjoyed at the level of its craftsmanship and beauty and for the pleasure it brings. Books such as Max Lucado’s *Because I Love You* and *You Are Special* reveal God’s truth; and although this is extremely important, it doesn’t mean that the books’ artistry and beauty are useless. The trees of Paradise were not only “good for food” but also “pleasant to the sight” (Gen. 2:9). Every square inch of the planet has been claimed by God, and Ryken believes that our leisure, including the books we read, are matters of serious concern. God does not regard artistry as irrelevant or unimportant. Therefore, light-hearted books, such as those by Dr. Seuss and Eric Carle, for example, can be enjoyed for the pleasure they bring to us and the children we share them with. Although many of these books will not have any overt theological or even moral “message,” many books do have a discernable worldview from which they were written.

**Values in Children’s Literature**

A worldview is a set of beliefs that helps us decide how to think or act; it is how we understand the world. According to Entwistle (2004), worldviews function much like glasses. Although at first we are aware of the rims and even the lenses, as we get used to them, we no longer even notice them. Likewise, worldviews help to focus what we see, but we are seemingly ignorant that they exist as a filter between ourselves and reality. Although everyone has a worldview, we rarely give this a thought. Some worldviews are thoughtful and others incoherent, but we typically assume that our worldview is correct.

Most books also have a worldview, although often, because of the subject matter, it is difficult, if not impossible, to ascertain. During the didactic era of literary history, most books were written from a *theistic* worldview, a belief in a creator God. These books, along with the Bible, were the textbooks of the classroom. Today, however, books increasingly reflect a *naturalistic* worldview, a belief that the world came into reality without God’s intervention. Examples of worldview in literature can be identified under 3 broad categories:

- **Theism**—the belief in the existence of a God or gods who gives meaning to life and is the sustaining force behind the world
- **Atheism**—no belief in the existence of God(s) or the supernatural
- **Animism**—the belief that spirits inhabit the world and impose their will upon it

Each of these can be divided into various sub-categories:
Theism | Atheism | Animism
---|---|---
Christianity | Buddhism | Wicca
Judaism | evolution | Native American
Islam | naturalism | Spirituality
Hinduism | secular | Pantheism
Creationism | | New Age
Universalism | humanism | Pluralism
Pluralism

Excluding the overtly religious categories (e.g. Christianity, Hinduism, etc.), we will look at the following sub-categories under each worldview:

**Theism**
- Universalism—a loving God would never harm anyone; everyone will end up in the same place—“all roads lead to heaven.”
- Pluralism (cultural diversity/tolerance)—all people (beliefs) are the same; we're not to treat some groups as “inferior” (a compelling Christian virtue, although there may be times when such tolerance compromises transcendent values in the Christian worldview).

**Atheism**
- Naturalism—denies the existence of a transcendent God; natural causes alone explain everything that exists.
- Secular humanism—humankind is an end unto itself; that’s all there is.
- Relativism—there is no external, objective reality—each person creates his or her own reality.

**Animism**
- Pantheism—the belief that God is seen in all things, animate and inanimate (therefore all things are divine).
- New Age—there is no personal god, but a higher consciousness within each person (we ourselves are God).

This is not a comprehensive list of worldviews (others might include polytheism, deism, existentialism, or others), nor is it the only way that worldviews can be viewed or organized.
(See Sire—*The Universe Next Door*, Smart—*Worldviews*, and Entwistle—*Psychology and Christianity* for other viewpoints.) However, these are the ones that are of interest for this article.

The following are examples of each from children’s books (CB) and young adult literature (YA) that fall under each of these categories:

- **Universalism**
  
  *The Little Match Girl* (Anderson): “The girl stretched out her hands. She felt wonderfully light Grandmother folded the girl in her arms and climbed upward with her…Higher and higher they climbed, into the light and warmth. They were with God.” (CB)

- **Pluralism**
  
  *People* (Spier): “It’s very strange: Some people even hate others because they’re unlike themselves, because they’re different…Isn’t it wonderful that each and everyone of us is unlike any other?” (CB)

- **Naturalism**
  
  *The Greatest Power* (Demi): “Eternal life continues from seed to seed, forever and ever in perfect harmony. So life is the greatest power in the world…” (CB)

  *The Golden Compass* (Pullman): "The Authority, God, the Creator, the Lord, Yahweh, El, Adonai, the King, the Father, the Almighty-- those were all names he gave himself. He was never the creator. He was an angel like ourselves- the first angel, true, the most powerful, but he was formed of Dust as we are, and Dust is only a name for what happens when matter begins to understand itself. (YA)

- **Secular Humanism**
  
  *The Little Engine That Could* (Piper): “I think I can, I think I can…”

  *Amazing Grace* (Hoffman): “If Grace puts her mind to it, she can do anything she wants…” (CB)

  *The Giver* (Lowry): “He pushed the plunger very slowly, injecting the liquid into (the baby’s) scalp vein until the syringe was empty. ‘All done. That wasn’t so bad, was it?’ Jonas heard his father say cheerfully….As he continued to watch, the newchild, no longer crying, moved his arms and legs in a jerking motion. Then he went limp. His head fell to the side, his eyes half open. Then he was still. The little twin lay motionless. He killed it! My father killed it! Jonas said to himself, stunned at what he was realizing. His father tidied the room. Then he picked up a small carton that lay waiting on the floor and lifted the limp body into it. He carried it to the other side of the room…and loaded the carton containing the body into (a chute on the wall)
and gave it a shove. ‘Bye Bye, little guy,’ Jonas heard his father say as he left the room.” (YA)

- Naturalism and Secular humanism

*The Berenstain Bears in The Bears’ Nature Guide* (Berenstain): “Nature is every person, thing, and place here on Earth and out in space. It’s all that IS or WAS or EVER WILL BE!” (CB)

- Pantheism

*Brother Eagle, Sister Sky* (Jeffers): “The earth does not belong to us. We belong to the earth...What befalls the earth befalls all the sons and daughters of the earth.” (CB)

*Strong At Heart* (Lehman): “...was learning about women’s spirituality and taught me. ... I’d had several years of conversations with Spirit and so I had enough of a foundation. I could literally rest some of the burden in the arms of the Mother.” (YA)

- Relativism

*Today I Feel Silly* (Curtis): “Whatever I’m feeling inside is okay!” (CB)

*The Golden Compass* (Pullman): “‘When you stopped believing in God, did you stop believing in good and evil?’ ‘No. But I stopped believing there was a power of good and a power of evil that were outside us. And I came to believe that good and evil are names for what people do, not what they are. All we can say is that this is a good deed, because it helps someone, or that’s an evil one, because it hurts them...’” (YA)

*Ironman* (Crutcher): “It’s not about good guys and bad guys, or right and wrong. It’s something more basic than those things. It’s about connection.” (YA)

Although these examples were selected because the worldview is explicit and easy to see, that is often not the case. Sometimes an implicit worldview can be more easily discerned in poetry than prose. Consider the following two examples:

*No Difference (Shel Silverstein)*

Small as a peanut,  
Big as a giant,  
We’re all the same size
When we turn off the light.

Rich as a sultan,
Poor as a mite,
We’re all worth the same
When we turn off the light.

Red, black or orange,
Yellow or white,
We all look the same
When we turn off the light.

So maybe the way
To make everything right
Is for God to just reach out
And turn off the light!

Here, the pluralistic world view is readily apparent.

Do Not Stand At My Grave and Weep (Anonymous)

Do not stand at my grave and weep;
I am not there. I do not sleep.
I am a thousand winds that blow.
I am the diamond glints on snow.
I am the sunlight on ripened grain.
I am the gentle autumn rain…
Do not stand at my grave and cry;
I am not there. I did not die.

Although not necessarily a children’s poem, the animistic (pagan) worldview can be clearly seen in the notion of becoming part of the elements after death.
Because the worldview of a given book is frequently more subtle than explicit, Ryken suggests the following questions to assist in identifying the underlying worldview of a piece of literature:

- What do the writer/characters value most?
- According to the writer/characters, what really exists (physical world, supernatural world, moral qualities, emotions)?
- According to the writer/characters, how should life be lived?
- According to the writer/characters, what brings human fulfillment or happiness (virtue, pleasure, money/God/etc.)?

**Conclusion**

The purpose of this article is not to suggest that every book that Christian parents and teachers read should be “Christian” or even “theistic” in its worldview. Rather, the important thing is that the teacher or parent be able to recognize various worldviews that are being purported in books and discuss the implication of the books’ message with their child(ren). *To be a thoughtful reader is to be an intentional reader,* and thus readers are able to take control over the books they read, rather than letting books’ subtle messages influence their thinking without their realizing it. As adults model the process of thinking and talking about what they read, it sets a wonderful example for the children in their lives. So read carefully, and *READ ON!*

**References**


Alabama’s Colored Conventions and the Exodus Movement: 1871-1879
by Judy Bussell LeForge

During the decade of the 1870s, Southern blacks struggled for their freedom to be recognized by the former Confederate states. Although slavery had been abolished and the Constitution now guaranteed their right to vote, the power of the newly “redeemed” Democratic Southern governments still threatened the social, economic, and political freedom of blacks. Some Southern blacks questioned whether the federal government could end white intimidation and discrimination against them. Growing violence from vigilante groups convinced many blacks in the South to organize themselves into conventions. In these assemblies, they discussed their grievances and sought ways to secure their civil rights. However, toward the end of the decade hope for a solution to their situation greatly diminished. Washington seemed no longer committed to enforcing Reconstruction legislation. By 1879, thousands of Southern blacks believed their only recourse was to leave the South and settle in the West. Historians consider this nineteenth-century event the black exodus movement.

Alabama, like other former Confederate states, hosted statewide colored conventions during Reconstruction to make Congress aware of their plight. In 1865, the state’s first colored gathering drew up resolutions with a conciliatory tone designed to appease the majority of white Alabamians. The next convention, characterized by a growing radicalism, called for establishment of a public school system, military protection from election-day abuses, and the right to hold office.¹ The decade of the 1870s signaled a turning point in the activities and interests of Alabama blacks. Some freedmen became disillusioned with conditions in Alabama and viewed emigration to the Midwest as an alternative to remaining in the South and facing the wrath of whites. Most blacks in the state, however, wanted to remain in Alabama and to carve out a better way of life for themselves and their families. Negroes decided to take a more active role in improving their circumstances when federal programs like the Freedmen’s Bureau, the Civil Rights Act of 1866, and the Homestead Act provided only limited aid.

By 1872, black interest in both conventions and emigration rose in Alabama.² During this time, a well-educated black man, James Thomas Rapier, participated in these assemblies and tried to improve the lot of freedmen in his state. However, as the decade progressed, the failure of Reconstruction to guarantee black civil rights became more apparent. Eventually, Rapier would lead the 1879 charge for black Alabamians to settle in Kansas. The purpose of this paper is to explain how Alabama’s colored conventions and leading blacks like Rapier fueled interest and action in the black exodus movement.

Calling conventions did not represent a new experience for black Americans. The first national colored convention met in Philadelphia in 1830 in response to growing efforts of the American Colonization Society to encourage free Negroes in northern cities to “remove to Africa.” Delegates to this 1830 assembly established a precedent of calling colored conventions to discuss matters of concern for blacks. These first colored conventions emphasized moral suasion to discuss the ills of slavery and discrimination. Thirty-five years later, Southern blacks combined political and economic activity in such assemblies to bring an end to their ill treatment during Reconstruction. Leading Alabama blacks like Rapier played a key role in these post-Civil War conventions.
A leading black minister from Maryland explained why these gatherings were not called Negro conventions. During an interview with the *Colored Tennessean*, the Reverend James Lynch reminded newspaper reporters that members of these assemblies were of mixed blood. “We are not ashamed of the term ‘negro,’ but to call it a ‘negro convention’ is a lie . . . it is very hard to tell whether there is any pure blood or not, because white men used to love colored women very much. . . .”  

James T. Rapier served as a key figure in Alabama’s colored assemblies and the state’s exodus movement. Born of free black parents in Florence, Alabama, in 1837 and educated in an experimental black community of Buxton, Ontario, Rapier emerged during Reconstruction as one of the South’s outstanding black political leaders. Returning to the South in 1864, he went to Nashville, and later to Maury County, Tennessee to become a planter. In 1865 he entered the political arena by delivering a keynote address at Tennessee’s State Colored Convention in Nashville. In his speech, Rapier petitioned the state’s legislature on the matter of legal rights for blacks:

We know the burdens of citizenship and are ready to bear them. We know the duties of the good citizen and are ready to perform them cheerfully, and would ask to be put in a position in which we can discharge them more effectually. We do not ask for the privilege of citizenship, wishing to shun the obligations imposed by it.  

Two years later, the *Montgomery Daily State Sentinel* commented that this address “had no little influence in securing [negro suffrage] in that State. . . . Not a few of the rebel scribblers for the press and rebel leaders might envy [Rapier] his elevation, education, and ability.” Tennessee granted blacks the right to vote in 1867.  

By 1866, Rapier decided to return to the family home in Lauderdale County, Alabama, hoping to become a cotton planter in the Tennessee Valley. Having rented 550 acres on Seven Mile Island in the Tennessee River, he hired only black tenant farmers and offered them low-interest loans. Rapier realized the economic struggles of black laborers in Alabama and sought to help them any way he could. The end of the Civil War found most of the freedmen of Alabama eking out a livelihood from the cotton fields. The economic and social dislocation of war, coupled with reluctance on the part of some freedmen to remain in an environment that seemed to symbolize their former status as slaves, prompted some to migrate to the urban centers of the state. This migration took place against the backdrop of a severe agricultural shortage of labor in Alabama.  

In the cities, blacks experienced some degree of political participation in defining their evolving status as freemen. Even before they entered politics, they began to express themselves politically through rallies, barbecues, and conventions. The first state convention of the colored people of Alabama assembled at Mobile in November 1865. The majority of the fifty-six delegates, chosen at local meetings, were ministers. Most of the resolutions drawn up had a conciliatory tone and nothing in them could be interpreted as being objectionable to the majority of whites in Alabama. One resolution stated,

*Resolved,* That we should labor to foster in the hearts of our people sentiments of peace, friendship, and good will toward all men – especially toward our white fellow-citizens among whom our lot is cast; and while we would relinquish none of the rights of our common manhood, we will studiously, according to our best knowledge and ability, so conduct ourselves as to be profitable to them and to ourselves.
A Northern newspaper, the New York Daily Tribune, took special note of this convention and the way its delegates showed great discretion in writing their resolutions. For example, the following resolution expressed how seriously Alabama blacks took their new citizenship responsibilities:

**Resolved,** That we feel that our new condition of freedom not only presents new motives to industry, but also imposes new obligations upon us to cultivate all the virtues of good citizenship, and that, therefore, it is our purpose to fulfill all the duties of our new positions according to the ability which God has given us.11

In evaluating this colored convention, a Tribune reporter declared:

Bearing that all oppression and ill-will have been manifested heretofore by the Whites and not by the Blacks, that the Blacks and not the Whites have contributed nearly all the labor which has been the foundation of the wealth of Alabama; that the Blacks without exception have been loyal and the Whites disloyal to the Union, and that the education of black children has been forbidden by law, we challenge the production of a declaration of sentiments from any people of any color, showing magnanimity, modesty, and good sense than those we have quoted above. If the White conventions in the Southern States had evinced equal discretion, the work of reconstruction would be considerably nearer its completion than it is now.12

Although Alabama’s first colored convention maintained a conciliatory tone, delegates clearly understood the importance of educating their children and regarded education as vital to the preservation of their liberties. However, the state’s first Reconstruction constitution made no provision for state-funded education for blacks. According to a report by the American Missionary Association, only a small proportion of Alabama’s black children “experienced the excitement of the classroom” and acquired an adequate education in the first years of freedom. Even those fortunate enough to have such an opportunity found their dilapidated schools deficient and unsafe.13 Within the next ten years, the lack of proper education in the state would convince blacks to consider moving to Kansas in hopes of finding better educational opportunities.

While the moderate course taken by blacks in the 1865 convention continued into 1866, new challenges to their freedom soon appeared. Resembling the old slave codes, Alabama freedmen, free Negroes, and mulattoes were forbidden to own guns, carry weapons, intermarry with whites, or testify in most courts in the state. In addition, vagrancy laws indirectly targeted blacks. According to the Mobile Nationalist, in practice these laws “applied almost exclusively to persons of color. If a policeman gets mad at a colored person, he immediately arrests him without warrants and with malice toward the whole race.” 14

By March 1867, Congress passed the Radical plan of Reconstruction and black participation became intense and widespread. In May of that year, Alabama’s second colored convention assembled in Mobile. This gathering stood in sharp contrast to the 1865 assembly because of a growing radicalism of black political leaders. The convention did not, however, represent a true cross-section of the state; one half of the delegates came from Mobile and the remainder from twelve other counties.15 Most of the Black Belt counties were represented. Twelve of these delegates later went on to hold political offices in the state. Many of the delegates to this convention constituted a new breed of semi-professional black politicians.16
Following two days of debate and deliberation, the convention adopted a series of resolutions affiliating itself with the Republican Party. While blacks equated Democrats with the former slaveholding class, most viewed Republicans as the way to guarantee their civil rights. Delegates also went on record advocating the establishment of a public school system, a program of relief for the aged and homeless, and military protection from election-day abuses. Because they desired good relations between the freedmen and their employers, the delegates proclaimed that “it is our undeniable right to hold office, sit on juries, to ride on all public conveyances, to sit at public tables, and in the public places of amusement.”

Rapier and other black leaders in Alabama hoped the Republican-led plan to reconstruct the South would provide these long-awaited opportunities and safeguards. However, Alabama legislators were slow to react to such proposals and civil authorities often overlooked crimes committed against blacks. For instance, in 1866 Horace King, an ex-Confederate soldier, went on a rampage murdering Negroes. According to a resident of Morgan County, “he has already shot two freedmen through the head.” Following the shootings, King brandished his weapons, bragged about his accomplishments, and cursed and threatened the entire black race. One observer lamented, “the civil authorities refuse to take any notice of King or his acts except to quietly inform him to keep out of the way for a day or two!”

Despite such indifference, regional newspapers took special note of Mobile’s 1867 colored gathering and its resolutions. Somewhat naively, the New Orleans Tribune, a black newspaper, reported that this convention would be the last colored assembly to meet in Alabama:

Hereafter, there will be no colored conventions in Alabama. Color will be regarded as an unnecessary prefix when bodies having political objects in view, or any other public bodies are to be designated. The Republican Party of Alabama will meet often but ‘colored’ or ‘white’ conventions belong to the past.

Although colored conventions did continue to meet in Alabama, some black leaders in the state expressed separatist tendencies concerning these assemblies. For instance, L.S. Berry, a prominent Negro from Mobile, opposed the idea of holding conventions representing only blacks. He explained that “[the] sooner we as a people cease to meet as a class in conventions, the better it will be for us as a race.”

On June 4, 1867, the first Alabama Republican State Convention convened in Montgomery. One hundred Negroes and fifty white delegates from every county in the state met to inaugurate the new party in the state. A contributing factor to this gathering was passage of the Congressional Reconstruction Acts of 1867, which enfranchised freedmen and provided for new state governments in the South. Although James T. Rapier had not participated in the 1865 and 1867 colored conventions, he soon reentered politics, organized recently franchised blacks and served as platform committee chairman at the Republican State Convention in Montgomery. The new party platform he helped draft called for free speech, free press, free schools, and “equal rights for all men without distinctions on account of color.” Realizing the fragility of the new coalition of blacks and pro-Union whites, Rapier asked fellow Republicans to proceed with “calmness, moderation, and intelligence.” In his plea for moderation, Rapier opposed the total disfranchisement of whites who had helped the Confederacy and rejected the redistribution and confiscation of land.

A few months after the state’s Republican Convention, Alabamians experienced the calling of yet another convention, a state constitutional convention. During the summer of 1867,
most Alabama freedmen came in contact with politics for the first time during registration for the election to the constitutional convention. A total of fifty-seven blacks served as voting registrars or delegates to the State Constitutional Convention of 1867. Many Alabama whites viewed the black registrars with great antagonism. They were increasingly alarmed by the growing number of political meetings that Negroes began attending during the registration period.  

The registration process also marked a new stage of involvement for black political leaders. By the autumn of 1867, a new black leadership had emerged. It was a relatively small group. Few had attended the state colored conventions of 1865 or 1867. Thirteen of the black politicians came from the Black Belt, three from the Tennessee Valley, and two from Mobile. This new group of black leaders became delegates to Alabama’s State Constitutional Convention that convened in Montgomery on November 5, 1867.

According to Malcolm Cook McMillan’s work, Constitutional Development in Alabama, 1798-1901, three of the eighteen black delegates to this convention were well-educated. These Negro delegates, John Carraway, Ovide Gregory, and James T. Rapier, boldly expressed their own opinions and “proved equal in debate to the best of the whites.” The other fifteen black delegates, McMillan maintained, “regarded the Radical Carpetbagger Daniel H. Bingham as their special leader.” Carpetbaggers were white or black Northerners who had come to the South during and immediately after the Civil War. Many Southerners viewed them as trouble-making outsiders. In McMillan’s opinion, carpetbaggers had dominated blacks in other Reconstruction conventions. However, it is unclear if these Northerners actually exerted such an influence in Alabama’s 1867 State Constitutional Convention.

The gathering of delegates to this constitutional convention, however, did represent the first time Democrats and Republicans had assembled in Alabama. More importantly, it served as the first meeting of blacks and whites in such a proceeding. Some observers labeled this body as extremist. Perhaps black delegates like Rapier frightened some whites with their extensive political experience and their eloquent and powerful language skills. Many whites, unaccustomed to having their views challenged by blacks, branded such speeches by Carraway, Gregory, and Rapier as “violent and highly inflammatory harangues.” Their calls for social equality especially upset white delegates.

As the Constitutional Convention of 1867 ended, some white Alabama Republicans vowed to maintain their prewar social attitudes and prepared to leave the party rather than allow for social equality. Essentially, they subordinated party interests to racial considerations. Eventually, the Black Belt and north Alabama factions divided the state’s Republican Party. As a result, factionalism undermined party unity more than Democratic opposition ever could have done. Despite this Republican factionalism, black delegates had performed superbly during the constitutional proceedings. Yet, those who spoke most frequently, Carraway, Gregory, and Rapier, were not natives of the Black-Belt region. Carraway and Gregory lived in Mobile, and Rapier resided in the Tennessee Valley. Ironically, the areas where the impact of slavery had been less severe spawned the most vocal black delegates.

By the late 1860s, white violence and intimidation caused a black emigration movement of sorts from western Alabama. The Ku Klux Klan had become particularly active in this area because black voters outnumbered white voters by sizable margins. According to a Perry County black lawmaker, a young girl on her way to visit her mother in a neighboring county was found “hanging from a tree with garment stripped off and eyes plucked out.” A Negro farmer from
Choctaw County, Robert Fullerlove, testified that he planned to leave the state, possibly for Kansas. “[I believe all the people in this neighborhood are fixing to go,” he said. “[T]here is no peace in the neighborhood.” Hooded Klansmen had driven Fullerlove and his family from their home, forcing them to sleep in the woods for several months. In nearby Sumter County, a similar sentiment developed. One black woman said that people were talking about going to “[a] place called Kansas, way up here somewhere. I’ve got it mighty strong in my head.” By 1870, however, the movement consisted of more talk than action. Between 1866 and 1870, the black population increased in both Choctaw and Sumter counties. According to the 1870 U.S. Census, only 168 native black Alabamians lived in Kansas.

While a few blacks left the state in the late 1860s, a great many more moved from one region of the state to another. This migration movement caused an increasing racial polarization. For Negroes, the migration itself was of even greater significance than any changes in population distribution that resulted from it. They migrated to improve their economic position and to protect themselves from physical abuse. More importantly, they migrated to affirm their freedom, because free movement represented one of the most obvious earmarks of their new status. No matter what else might happen to him, the Negro who could move controlled his own destiny.

Between 1869 and 1874, black conventioneers focused on improving the working conditions of black laborers. James T. Rapier had long recognized the need for the educational, political, and economic development of Negroes in the South. He realized that the dismal economic performance of Alabama blacks resulted in large part from their exclusion from the mainstream labor unions. While the leadership ranks of the National Labor Union invited Negro leadership, strong opposition from other members kept black participation at a minimum. As a result, black skilled workers were forced to form their own protective and benevolent associations.

In response to their exclusion, blacks convened the Colored National Labor Union Convention in Washington, D.C. in December 1869. Some 156 black delegates from virtually every state in the nation came to hear speeches on the condition of black workers. James T. Rapier served as the sole representative from Alabama. Evidence suggests he was self-appointed. Perhaps such action reflected Rapier’s sincere desire to improve the welfare of blacks in Alabama.

Chosen as a vice-president of the newly formed Colored National Labor Union, Rapier addressed the convention on December 9. Blacks who tilled the soil, he explained, paid extremely high rents for the use of the land, worked fourteen hours a day in the hot sun, and had little to show for their labor at the end of the year. As he charged the assembly to create a plan to ease the burden of the black tenant farmer, Rapier reminded his fellow delegates that demanding an eight hour work day would amount to nothing in the South. However, he maintained, “if [black tenant farmers] can obtain the wild lands of Kansas or land in other new States, they can live and thrive there without paying tribute.”

Rapier believed the federal government should provide blacks with 50 million acres of land for homesteading in the South or in Kansas, Nebraska, or the Dakotas. If such action were taken, he maintained that blacks would become independent and beyond the reach of Southern white landowners. His report the next day as a member of the Committee on Homesteading
received unanimous acceptance by the convention. Rapier’s report also included a plan for the establishment of a federal land bureau for blacks. 39

The Alabama delegate, along with twelve other officers of the convention, memorialized Congress on behalf of Southern blacks. This group also asked President Ulysses S. Grant to protect black sharecroppers from their landlords, sanction black land ownership, and aid them in establishment of a Federal land bureau. After several months passed without any action, Rapier realized he and the other delegates had received only empty promises from Washington. 40

Upon returning to Alabama, Rapier decided to take matters into his own hands. Calling upon black leaders in various parts of the state to gather information about black schools, churches, and wages, 41 he issued a call in the Alabama State Journal for a state labor convention to assemble in Montgomery. 42 Blacks from all over the state selected delegates to attend Alabama’s first colored labor convention. This three-day assembly, which began on January 2, 1871, attracted ninety-eight black farmers and farm laborers representing forty-two Alabama counties. 43

Once assembled in the state’s house chambers, the delegation of carpenters, mechanics, cotton pickers, and sharecroppers elected Rapier as its permanent chairman. 44 This somewhat unique gathering of skilled and unskilled workers shared a common purpose – to organize an effective labor union representing blacks. Such an organization hopefully would lead to their success in building economic, political and educational stability. When Rapier appointed committees to examine such topics as homesteads and education, delegates launched into a discussion of the condition of Alabama’s black laborers. 45

George Washington Cox, the radical chairman of the committee on homesteads, urged blacks to leave Alabama. This former legislator and Montgomery native had recently become disillusioned with the state Republican Party. Regarding the deteriorating condition of blacks he exclaimed, “Here, huddled as we are, so much of the same kind of labor in the market, wages down to starving rates, without land or a house that we can call our own, nothing but misery is in store for the masses.” 46 Cox refused to consider homesteading in Alabama because sites for possible homesteading were in areas where armed gangs of men in disguise terrorized freedmen. According to the editor of the Huntsville Advocate, “men wearing white hoods and robes, visiting Negro Cabins, beating, whipping, robbing, and murdering innocent blacks. These bands are having the effect of inspiring nameless terror among Negroes…Nobody is found out, arrested, or punished.” Such unspeakable crimes against blacks in Alabama helped convince Cox of the necessity of finding homesteads in Kansas and other Western states. 47

William V. Turner, chairman of the committee on the condition of colored people, agreed with Cox’s conclusions. As a former state legislator from Elmore County, Turner declared that black farmers and laborers were much worse off in Alabama than in any other section of the country. “The poor colored laborer on the first day of January makes a contract for one year,” he declared, “but at the expiration of the year, . . . after twelve months of hard service, he finds himself as poor or poorer than at the beginning.” 48 In addition, he concluded that the educational facilities for black children were woefully inadequate. Lack of proper funding had created intolerable conditions in the state’s black schools. In some cities, schools were ramshackle and run-down, while in other localities “nigger schools” were not even permitted. According to Turner, the panacea for these evils was the emigration of blacks to the “broad and free West.” 49
Even though most of the delegates agreed with Cox and Turner concerning the poor economic and educational conditions of blacks in the state, they did not favor emigration as the cure. Similarly, Republicans outside the colored labor convention advised blacks to remain in Alabama. For example, the white editor of the Montgomery *Alabama State Journal* suggested that black tenant farmers “improve their pecuniary condition by hard work and consider settling among a more liberal people only if denied the opportunity for improvement.” 50 The Selma *Press* cautioned blacks not to act hastily. The editor of the *Press* warned of encountering “the hardships attendant upon starting life anew in a strange land.” 51

Conservatives also admonished blacks to remain in Alabama, but for very different reasons. Some feared that the loss of black laborers would be detrimental to the state. The *Bluff City Times* reminded blacks to think for themselves and not take the advice of men like Cox and Turner. This newspaper criticized the convention delegates for “consuming so much time discussing the cock and bull stories of political proscription, Ku Klux outrages, destruction of colored churches, denial of school privileges, and the advantages of emigration to Kansas.” 52 The *Alabama Beacon* maintained that blacks could neither adapt to the cold climate of Kansas nor compete with white workers. 53 The Montgomery *Daily Advertiser* contended that “the whole notion of emigration is a carpetbag idea, conceived by carpetbaggers . . . desirous of organizing a populous negro county in Kansas to which they will follow to hold the offices.” The paper warned that if blacks emigrated to Kansas and other western states, they would repent “in sackcloth and ashes.” Instead of following mischievous schemes, the *Advertiser* counseled blacks to remain at home and work honestly and zealously for a living. 54

As the three-day state convention came to a close, the Committee on Permanent Organization issued its report and named the Labor Union of Alabama as an affiliate of the Colored National Labor Union. The stated purpose of the organization was “to further the welfare and education of the laboring people of the state.” 55 Before adjourning, the convention chose state representatives to attend the second annual meeting of the Colored National Labor Union Convention to meet the second week of January 1871 in Washington, D.C. James T. Rapier became one of the three Alabama representatives chosen to attend this gathering. 56

When the second Colored National Labor Union Convention assembled, representatives from twenty-two states attended. For a second time, convention delegates petitioned the federal government to assist black laborers. 57 During an opening speech before the assembly, Rapier reprimanded Congress for failing to improve the economic and educational condition of blacks in the South. At the same time, however, he presented a plan for a new agency to aid blacks—a Bureau of Labor. According to Loren Schweninger, a noted biographer of Rapier, this bureau was to be created by the Colored National Labor Union. 58 In contrast, Richard Bailey, in his book *Neither Carpetbaggers Nor Scalawags: Black Officeholders during the Reconstruction of Alabama, 1867-1878*, maintained that Rapier requested Congress create a bureau of labor. 59 Regardless of which interpretation is correct, two things are clear: the bureau sought to aid blacks in locating homesteads in the public domain; and the other delegates strongly supported such an agency. By distributing information on homesteads to blacks, the *New National Era* noted, the new bureau might help alleviate the Southern blacks’ want of land, employment, capital, and pay. 60

The delegates believed that a bureau, with state and local affiliates, would give blacks the necessary means to improve their condition. Members of the convention quickly voted in favor of the proposed bureau and chose nine delegates to head up the new organization. James T.
Rapier became one of these nine. On January 11, 1871, during the last session of the five-day assembly, members empowered nineteen delegates to cooperate with the new bureau in establishing state affiliates throughout the South. No delegate from Alabama was selected because Rapier had already established the first colored labor union in his home state.61

Rapier then returned to Montgomery to discuss the working conditions of Negroes with local black leaders. Following a thorough investigation of the earnings of Negro tenant farmers, educational opportunities for black children, and possible sites for Negro colonization, the decision was made to organize another state convention. Almost a year lapsed before Rapier, in his capacity as executive chairman of Alabama’s Colored Labor Union, called a second meeting of the organization. Approximately fifty Negro delegates from various parts of the state gathered in Montgomery on January 2, 1872. The committee on labor and wages urged Congress to pass a freedman’s homestead bill creating a joint stock company to purchase land for all former slaves. George Marlow, chairman of the committee on emigration, advocated a different solution to the wage problem: emigration to Kansas. Describing that state as mild and pleasant, Marlow exclaimed, “You can get good land . . . for $1.25 an acre. The country is . . . level, with deep, rich soil, producing from 40 to 100 bushels of corn and wheat to the acre. The corn grows nine feet high. I never saw better fruit anywhere than there.” 62 Despite Marlow’s colorful description of the state, the convention took no action on emigration at that time. Evidently, the desire to move to Kansas had faded as a result of Republican political victories in 1872.63 James Rapier’s election to the U.S. Congress represented one of these victories. He was the only black from Alabama in the Forty-Third Congress representing the Second Congressional District. This district was made up of a group of counties running through the south-central part of the state called the “black belt.” So named for its soil, almost ninety percent of the people in these counties were black. Although Rapier ran for reelection in 1874 and 1876, he was defeated both times by Democrats.

Ironically, 1872 also became the year Rapier realized that the colored labor movement seemed doomed for failure. Republican indifference, opposition of powerful white landowners, and the lack of federal assistance all played a role in its impending demise. Even Alabama’s Colored Labor Union had made no practical gains for freedmen. Not only were the economic and educational conditions for blacks in the state not improving; in some areas they were deteriorating. 64 Although Rapier had advocated the creation of a federal land bureau, served as director of the Montgomery Freedman’s Bank, established the first state affiliate of the Colored National Labor Union, and demanded reforms in the public school system, the federal government created no land bureau, the bank suffered during the 1873 depression, and Alabama’s Colored Labor Union withered on the vine. Gradually, Rapier viewed emigration as a viable option for freedmen.

The success of Alabama Democrats in the 1874 congressional election caused deep disillusionment among blacks. Determined to reinforce their single-minded appeal to white supremacy, some Democrats resorted to intimidation and violence against Republicans, especially black voters. For example, despite Rapier’s urgent request for protection for the voters in Barbour County, a detachment of United States soldiers did nothing to prevent a deadly election-day riot on November 3, 1874. As a result, at least one hundred Negroes were killed or wounded in the melee. In addition, ballot box stealing as well as other irregularities occurred in other parts of the state. In many ways, this election ended a four-year experiment with Reconstruction and stifled any hope of improvement for blacks in the state. As a result of this
major defeat, a meeting convened in Montgomery on December 11, 1874 to make preliminary plans for a “Mass Exodus” of blacks from Alabama. A committee, which included James Rapier, met to call a convention for this purpose. This statewide convention sent a memorial to Washington that complained:

Our lives, liberties, and properties are made to hand upon the capricious, perilous, and prejudiced judgments of juries, composed of a hostile community of ex-slave holders, who disdain to recognize the colored race as their peers in anything, who look upon us as being by nature an inferior race, and by right their chattel property.

The assembly cited growing acts of violence against Alabama blacks who participated in politics. “As long as [negroes] listened to outsiders,” read one newspaper editorial, “the gallows would be crowded with their race.” According to Tusculumbia Democratic leader Robert Lindsey, blacks were being lynched to weaken the influence of the Republican-sponsored Union League in the state. Given the worsening conditions the delegates concluded, “Shall we be compelled to repeat the history of the Israelites and go into exile? . . . We linger yet a while to learn what will be done.” Even as the convention “lingered,” it established an emigration organization and sent a committee to seek lands in the West.

In the meantime, some blacks were encouraged by passage of the Civil Rights Act of 1875. Even though this bill promised Negroes full enjoyment of accommodations in inns, conveyances, theaters, and other public places, it did not include, among other things, a section addressing equal education. Most Alabama blacks still believed their own state and national organizations were necessary to bring comprehensive change. For example, when the National Conference of Colored Men met in Nashville in May 1876, migration became a major topic of discussion. In 1878, President Rutherford B. Hayes appointed James Rapier to the position of Collector of Internal Revenue for the Second Alabama District. That same year, Southern blacks again became the focus of national attention. By this time, Rapier had become an ardent supporter of black emigration, and he used the office to urge former slaves to leave Alabama and settle in the West. The black man, he asserted, would never be accorded equal rights or economic opportunity in the South.

In May 1879, Nashville again hosted the National Conference of Colored Men. Rapier served as a delegate to the convention and headed the committee on migration. According to the committee’s report, blacks were fleeing from the “. . . unwillingness, or downright refusal and failure. . . of the Democratic party to protect them in their civil, religious, and political rights.” Laws passed by Democratic constitutional conventions and legislatures “have made colored people the target for . . . vagrant laws, unjust poll-taxes, and curtailed educational advantages . . .” Only by “the equal justice of laws grouping together the common interest of all her citizens, regardless of race. . . can a remedy be found which would induce these people to remain.” Until such time, the colored people of the South “will take Horace Greeley’s advice, and go West.”

Although pro-emigration sentiment dominated the Nashville convention, several prominent blacks counseled their followers to stay in the South. For instance, former Alabama congressman Jeremiah Haralson stated that he opposed emigration. The South, he maintained, seemed the proper place for the black man because “it had a mild climate especially suited for his impoverished and ignorant condition.” Haralson contended that it took a hardy and thrifty foreigner to thrive in a cold and forbidding country.
In spite of efforts to convince them to remain in the South, thousands of blacks from Louisiana, Mississippi, Tennessee, North Carolina, and Alabama emigrated to the West and North in search of a better life.\textsuperscript{72} A bewildered Congress tried to find the causes of this unique movement of people. Senator William Windom, a Minnesota Republican, gave the first official recognition to the exodus movement. He accomplished this by introducing a resolution proposing the selection of a special Senate Committee on Emigration. This committee would inquire into the practicality of encouraging black people to leave areas where they were denied constitutional rights. Because of his reputation as a prominent black leader in the South, James Rapier testified before the Senate committee on the issue of emigration. In August 1879, at the urging of Senator Windom, Rapier visited Kansas to inspect possible sites for settlement by blacks. Returning to Montgomery in September, he began a series of speaking engagements, trying to persuade black tenant farmers in Alabama to move to Kansas.\textsuperscript{73}

Although it is unclear how many Alabama blacks participated in the Exodus Movement, the emigration impulse at one point appeared quite intense. Emigration agents made concerted efforts to entice freedmen to leave the state as early as 1876. According to the Acts of the General Assembly of Alabama, local authorities in thirteen counties compelled these agents to pay a fee of $100 for solicitation.\textsuperscript{74}

The majority of sources dealing with the Exodus Movement rarely mention Alabama’s role. One then must conclude that a relatively small number of the state’s residents took part in the movement. Perhaps this is understandable considering the “stay here” advice given to blacks by both friend and foe. Both Democrats and Republicans in the state feared the potential loss of laborers. In addition, blacks in Alabama probably did not look forward to leaving the only home most of them had ever known to settle in a strange state.

Regardless of whether fifty or fifty thousand Alabama residents emigrated during the late 1870s, the Exodus Movement greatly influenced the state. Under the guidance and leadership of James T. Rapier, Alabama’s colored labor conventions focused on improving the working conditions of black laborers. During these conventions, some delegates viewed emigration to the “broad and free West” as the panacea for the evils experienced by black laborers. Once Rapier realized that the efforts of the colored labor movement seemed doomed, emigration became a viable option for freedmen. Democratic congressional victories in Alabama in 1874 made emigration even more attractive. By 1879, Rapier clearly supported relocation to Kansas as the only hope for Alabama’s freedmen.

In conclusion, Alabama’s colored labor conventions, James T. Rapier, and the Exodus Movement were interconnected. Each served as an essential link to the other. Even though the colored labor conventions took place within the confines of the state, they provided a national platform for Rapier and other black leaders to showcase the necessity of emigration.

ENDNOTES

3 Colored Tennessean, August 8, 1865. The term black is used to denote full-blooded Afro-Americans, the terms Negro and Afro-American are used to denote all members of the race, and the term mulatto is used to denote Afro-American delegates of mixed ancestry.
4 Nashville Daily Times, January 18, 1865.
5 Montgomery Daily State Sentinel, November 25, 1867.
6 Nashville Press and Times, September 23, 1867.
8 Proceedings of the Black National and State Conventions, 300.
10 Proceedings of the Black National and State Conventions, 301.
11 Ibid.
12 New York Daily Tribune, December 12, 1865.
13 W.G. Kephart to George Tappan, May 9, 1864, American Missionary Association Papers, Amistad Research Center, Dillard University, New Orleans, La.
14 Mobile Nationalist, March 15, 1866.
16 Proceedings of the Black National and State Conventions, 301; Montgomery Weekly Advertiser, May 7, 1867.
17 Kolchin, First Freedom, 158.
18 John B. Callis to Wager Swayne, June 7, 1866, Swayne Papers, State Department of Archives and History, Montgomery, Alabama.
19 New Orleans Tribune, May 7, 1867.
20 Nationalist, November 30, 1868.
23 Ragsdale, Black Americans in Congress, 126.
24 Kolchin, First Freedom, 160.
25 Ibid., 163, 167.
27 Mobile Advertiser and Register, November 27, 1867.
28 Bailey, Neither Carpetbaggers Nor Scalawags, 79-80.
29 Green Shadrack Washington Lewis to Governor William Hugh Smith, 8 April 1870, Governor William Hugh Smith Papers, Alabama Department of Archives and History.
31 Kolchin, First Freedom, 22.
33 Kolchin, First Freedom, 23.
35 National Anti-Slavery Standard, November 27, 1869.
36 Bailey, Neither Carpetbaggers Nor Scalawags, 182.
40 Bailey, Neither Carpetbaggers Nor Scalawags, 183. In 1870 Rapier became his party’s nominee for secretary of state. Despite a vigorous campaign and publishing a newspaper, the Republican Sentinel, he went down to defeat largely because of violence and opposition from white Republicans to any black candidate. But at the national level,
as reward for his party loyalty, Rapier was appointed assessor of internal revenue for the Montgomery district in 1871. He was the first black to attain such a high patronage position in the state.

41 *Southern Republican*, December 21, 1870; Montgomery *Alabama State Journal*, December 20, 1870.


43 Bailey, *Neither Carpetbagger Nor Scalawags*, 184.


45 Montgomery *Alabama State Journal*, January 6, 1871. Rapier also appointed committees on churches, finance, labor, and printing.

46 *Southern Republican*, January 11, 1871.


52 Bluff City Times, January 12, 1871.

53 *Alabama Beacon*, January 21, 1871.


56 Bailey, *Neither Carpetbaggers Nor Scalawags*, 187. The other two representatives besides Rapier were James K. Greene of Hale County and Latty J. Williams of Montgomery County.

57 *New National Era*, January 10, 1871. The general mood of the assembly was very pessimistic.


60 *New National Era*, January 19, 1871.


63 *Alabama Daily State Journal*, January 3, 1872. In 1872, Rapier won a seat in the U.S. Congress. He was the only black from Alabama in the Forty-third Congress representing the Second Congressional District. This district was made up of a group of counties running through the south-central part of the state called the “black belt.” So named for its soil, almost ninety percent of the people in these counties were black. Although Rapier ran for reelection in 1874 and 1876, he was defeated both times by Democrats. The Democrats gerrymandered the nine Black Belt counties into six different congressional districts. They grouped five others — Dallas, Hale, Lowndes, Perry, Wilcox — into a single, overwhelming Negro district.


65 *Alabama Daily State Journal*, November 14, 1874; *The Alabama Beacon*, December 5, 1874. In 1874, disgruntled blacks in Louisiana, Mississippi, North Carolina, Tennessee, and Alabama began to move to the North and West. Benjamin “Pap” Singleton of Tennessee inspired many to take this action.

66 Testimony at Senate Hearing, Record and Testimony of the Select Committee to Investigate the Causes of Removal of the Negroes From the Southern States to the Northern States, 46th Congress, 2nd Session, 1880. (Testimony of Phillip Joseph, Part 2), 395-401. In early January, 1879, Senator Windom, a Minnesota Republican gave the first official recognition of the exodus movement. He accomplished this by introducing a resolution proposing the selection of a special Senate Committee of seven Senators. They would inquire into the practicality of encouraging black people to leave areas where they were denied constitutional rights. The proposal drew little support from either Republican or Democratic senators. However, a number of events were taking place that indicated the time might be past for mere inquiry.

67 United States Congress, 42nd Cong., 2d sess., vol. 2 Senate Reports no. 41 (1872): 159, 160. Union Leagues hoped to organize former slaves to support the Republican Party.

68 Testimony at Senate Hearing, 46th Congress, 2nd Session, 1880.


71 Schweninger, James T. Rapier and Reconstruction, 162.


73 Schweninger, Rapier and Reconstruction, 162-63. During his testimony before the Senate Committee on Emigration, Rapier informed the Senators of grossly unfair laws in the state of Alabama. For example, one Alabama law that affected blacks made it a felony to buy or sell cotton, corn, or wheat between sunset and sunrise. Consequently, black tenant farmers were forced to trade only with white property owners.

74 Acts of the General Assembly of Alabama, Sessions of 1876-77, Held in the City of Montgomery, Commencing the Third Monday in November, 1876 (Montgomery: Barret and Brown, 1877), January 30, 1877, 225.
Energy and the Elliptical Orbit
by Bill Nettles


In the January 2007 issue of *The Physics Teacher* Prentis, Fulton, Hesse, and Mazzino\(^1\) describe a laboratory exercise in which students use a geometrical analysis inspired by Newton to show that an elliptical orbit and an inverse-square law force go hand in hand. The historical, geometrical, and teamwork aspects of the exercise are useful and important. This article presents an exercise which uses an energy/angular momentum conservation model for elliptical orbits. This exercise can be done easily by an individual student and on regular notebook-sized paper.

**Motivation**

The results of the original elliptical orbit lab described by Prentis *et al* depend on accurate measurements of small line segments drawn on sections of a very large (>1 m major axis) ellipse. When I tried the procedure by myself drawing a smaller ellipse (< 50 cm major axis), the line segments QR and QT were quite small and difficult to measure. I like tasks like this which acquaint students with the relationships between geometry and physics, so I began to wonder if there was some other analysis which could be done with smaller ellipses, and possibly individually.

While thinking about the implications of Kepler’s laws, I remembered that the Areal Law is consistent with the conservation of angular momentum. Another approach to this conservation law is to realize that the gravitational force is a central force. It follows that the angular momentum of a planet in orbit around the sun is conserved because the line of action of the force passes through the center of mass of the planet, and the force produces no torque for the orbital motion.

Furthermore, if the gravitational force is a central force and is spherically symmetric, it is conservative,\(^2\) is related to a potential energy function, and the total mechanical energy should be conserved.

While not as historically oriented, this exercise offers a smaller alternative (or possible supplement) to the “Orb Lab,” modeled on conservation of angular momentum and energy.

**Derivation**

Using the conservation of mechanical energy,

\[ E = \frac{1}{2} m v^2 + V(r), (1) \]

and the conservation of angular momentum,

\[ \ell = mvr \sin \phi, (2) \]

we find a relation,
\[ \frac{1}{\sin \varphi} = \frac{2m}{\ell^2} (1 - V(r)), \quad (3) \]

where \( r \) is the distance from the focus of the ellipse (the position of the sun for the classical planetary problem), \( \varphi \) is the angle between the radial vector and the velocity vector (tangent to the ellipse), \( m \) is the reduced mass, \( \ell \) is the angular momentum, \( E \) is the total energy, and \( V(r) \) is the potential energy function of the conservative force. For an attractive central conservative force, \( V(r) \) can be in the form \(-kr^n\).

**Process**

An ellipse is drawn easily using a loop of string and two push pins. Then the student draws at least six (preferably more) radial vectors from one focus (a pushpin location) and tangential vectors. The perihelion and aphelion vectors should be included since the value of \( \varphi \) is known to be 90° for those. Figure 1 illustrates an example ellipse (semi-major axis length = 0.1015 m, semi-minor axis length = 0.100 m, aphelion distance = 0.122 m, eccentricity = 0.20), marked with several radial (position) vectors from one focus and tangent (velocity) vectors at the intersections of the radial vectors. The student can easily measure \( r \) and \( \varphi \) with good precision.

Good results are obtained when drawing the full ellipse on standard notebook-sized paper. Larger (legal-sized or other) paper could be used by a single student to accommodate ellipses with large eccentricities.

The most difficult part of the process is judging how to draw the tangents, but this is a good exercise in technique and judgment which will affect the final fit. It also illustrates that velocity is not always perpendicular to the position vector.

Each student can draw and measure his or her own ellipse so he or she gets to participate in the full process, and additional ellipses could be drawn and measured as part of a homework exercise. For a more advanced activity, each student could draw several ellipses of different eccentricities with the same loop, resulting in a constant aphelion, and investigate whether different eccentricities result in different orbital parameters for a given aphelion. From this, the teacher could discuss the ideas of intersecting orbits and satellite “boosting.”

**Testing the Model**

Looking at the form of equation (3), we see that it would be appropriate to try a power fit\(^3\) plus a constant,

\[ y = A + B r^n, \quad (4) \]

where \( y \) is the value calculated from the left side of equation (3). The parameter \( A \) corresponds with \( \frac{2m}{\ell^2} E \) and parameter \( B \) with \( \frac{2m}{\ell^2} (k) \). For a closed orbit, \( A \) should be negative (the total energy of a closed orbit is negative\(^4\)) and an inverse-square law force should result in \( n = -1 \).

With an inverse-square force, \( B \) should be positive (\( k \) is positive so \( V(r) \) itself is negative and the corresponding force—think negative of the derivative—is attractive).
There are some additional attributes of this energy model that can be checked to support the validity of fitting function. If one assumes that the force producing the elliptical path is an inverse-square force, then one can show that the fitting coefficient $A$ should be equal to $\frac{-1}{b^2}$ and the ratio $B/A$ should be $-2a$, where $a$ and $b$ are the semi-major and semi-minor axes of the ellipse, which the student can also measure easily. If the fitting parameters are close, we have good reason to believe that our model (energy and angular momentum conservation and an inverse-square force) works.

After obtaining a fit using the form above, the data can also be fit to an explicit $1/r$ function, $y = A + \frac{B}{r}$, and compare these new $A$ and $B$ values with their ideals. If the model is valid, this should bring the values of $A$ and $B$ closer to their geometrically/physically expected values.

Table I presents results from my attempts and some students’ attempts. The number of radial vectors drawn on each ellipse varied between 6 and 12, including the perihelion and aphelion vectors. Figure 2 shows an example of a fit to the general model equation (4) and to the equation (5).

**Benefits**

After this exercise, students have performed several valuable tasks:

- Drawing and measuring the parameters of a ellipse
- Measuring perihelion and aphelion distances
- Drawing position and velocity vectors
- Measuring angles between vectors and seeing that velocity is not necessarily perpendicular to position in a closed orbit
- Showing that angular momentum and energy conservation yield a simple relationship consistent with elliptical orbits
- Showing that the total energy for an elliptical orbit is negative
- Showing that the potential energy function is negative and of the form $1/r$

**Suggestions for Experimental Technique**

1) Many students find it easier to draw the tangent lines on the ellipse before drawing the radials from the “sun” focus to the tangent point.

2) Make sure that the students draw the tangent lines long enough to accommodate the size of the protractor being used.

3) The tangent line at the semi-minor axis will be perpendicular to the axis. Use a protractor to draw this.

4) While it doesn’t matter which angle (acute or obtuse) is measured between the position and velocity vectors, it’s a good idea to consistently measure the same type. If this is done, the angle
at the semi-minor axis will be either a maximum (for obtuse measurements) or a minimum (for acute) and can serve as a “sanity-check” in the data.

Acknowledgements

The author would like to thank the anonymous reviewer for the useful suggestions and corrections that were made. Many thanks are also due to my colleague, Dr. David Ward, for his encouragement and suggestions.

Table I. Results of measurements and fits to energy model for elliptical paths. (Each fit is based on 6 - 12 data points.)

<table>
<thead>
<tr>
<th>Aphelion (m)</th>
<th>a (m)</th>
<th>b (m)</th>
<th>ε</th>
<th>A (m^2)</th>
<th>-1/b^2 (m^2)</th>
<th>B (m^{n-1})</th>
<th>B/A (m)</th>
<th>-2a (m)</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>.147</td>
<td>.0865</td>
<td>.062</td>
<td>.70</td>
<td>-232</td>
<td>-260</td>
<td>37.3</td>
<td>-.161</td>
<td>-.173</td>
<td>-1.049</td>
</tr>
<tr>
<td>.142</td>
<td>.0810</td>
<td>.053</td>
<td>.75</td>
<td>-349</td>
<td>-356</td>
<td>57.3</td>
<td>-.161</td>
<td>-.162</td>
<td>-1.007</td>
</tr>
<tr>
<td>.140</td>
<td>.0975</td>
<td>.0865</td>
<td>.46</td>
<td>-140</td>
<td>-137</td>
<td>24.3</td>
<td>-.174</td>
<td>-.195</td>
<td>-0.964</td>
</tr>
<tr>
<td>.179</td>
<td>.126</td>
<td>.1145</td>
<td>.42</td>
<td>-72.9</td>
<td>-76.3</td>
<td>20.0</td>
<td>-.274</td>
<td>-.252</td>
<td>-1.024</td>
</tr>
<tr>
<td>.122</td>
<td>.102</td>
<td>.100</td>
<td>.20</td>
<td>-93.5</td>
<td>-100</td>
<td>17.9</td>
<td>-.191</td>
<td>-.203</td>
<td>-1.043</td>
</tr>
<tr>
<td>.146</td>
<td>.104</td>
<td>.095</td>
<td>.40</td>
<td>-143</td>
<td>-111</td>
<td>20.1</td>
<td>-.141</td>
<td>-.208</td>
<td>-0.881</td>
</tr>
<tr>
<td>.167</td>
<td>.104</td>
<td>.083</td>
<td>.60</td>
<td>-130</td>
<td>-145</td>
<td>32.1</td>
<td>-.247</td>
<td>-.208</td>
<td>-1.053</td>
</tr>
<tr>
<td>.166</td>
<td>.120</td>
<td>.110</td>
<td>.39</td>
<td>-76.0</td>
<td>-82.6</td>
<td>17.6</td>
<td>-.232</td>
<td>-.240</td>
<td>-1.036</td>
</tr>
<tr>
<td>.390</td>
<td>.247</td>
<td>.200</td>
<td>.58</td>
<td>-18.5</td>
<td>-25</td>
<td>8.75</td>
<td>-.473</td>
<td>-.493</td>
<td>-1.125</td>
</tr>
<tr>
<td>.148</td>
<td>.102</td>
<td>.090</td>
<td>.45</td>
<td>-102</td>
<td>-123</td>
<td>19.1</td>
<td>-.187</td>
<td>-.203</td>
<td>-1.024</td>
</tr>
</tbody>
</table>
Figure 1. Example of a student’s ellipse drawn on notebook-size paper.
Figure 2. Fit of Elliptical Orbit Data to Entergy Model Equations


Taylor, p. 315.
Another approach to the derivation: Because energy is conserved, calculate the total energy (kinetic + potential) at the aphelion, \( r_{\text{max}} = a(1+\varepsilon) \), where \( \varepsilon \) is the eccentricity of the ellipse. At the aphelion point, the tangential component of the acceleration is zero and the normal component is directed toward the “sun” with a magnitude of \( \frac{v^2}{r} \), where \( r \) is the radius of curvature of the ellipse at this point. This radius, however, is NOT equal to \( r_{\text{max}} \) but rather \( \frac{b^2}{a} \). One can obtain this result by using the radius of curvature formula for plane curves (see [http://mathworld.wolfram.com/RadiusofCurvature.html](http://mathworld.wolfram.com/RadiusofCurvature.html)) with a parameterized equations of an ellipse \( x = a \cos(\theta), y = b \sin(\theta) \); \( \theta = 0 \) at the aphelion point. By setting \( \frac{mv^2}{r} = \frac{mv^2}{a/b^2} \) equal to the force \( -k/r_{\text{max}}^2 = -k/(a(1+\varepsilon))^2 \), using this to eliminate \( v \) from the kinetic energy term and using the ellipse parameter relationship \( b^2 = a^2(1-\varepsilon^2) \), one shows that \( \frac{2m}{\ell^2} E = -1/b^2 \) and \( k/E = 2a \) (or \( B/A = -2a \)).
Chemical Hazards In and Out of School

by Marlyn Newhouse

Household Hazardous Chemicals

Union University addresses hazardous chemicals in a two-fold front. In our Fundamentals of Chemistry course, which uses household chemicals from the grocery store for the most part, we discuss hazardous chemicals as we encounter them. In a lesson on Spectroscopy, we note the overhead lighting (tubes) have mercury in them. Mercury is a hazardous heavy metal and as such these tubes should NOT be put into dumpsters! An appropriate disposal would be to take used household tubes to the semi-annual “Household Hazardous Waste” collection program at the Jackson Fair Grounds in April or October.

Any acid or base waste that is neutralized to pH between 4 (vinegar) and 9 (household ammonia) can safely be flushed down the sink with lots of water. Baking soda (sodium bicarbonate) is wonderful to have on hand for this purpose.

Batteries come in all shapes, sizes, and contents. Regular alkaline batteries can be thrown in the household trash. Car batteries, which contain lead, another heavy metal, need to be recycled. Usually, if you buy a new battery, the retailer will ask for an old one or charge a “core charge”. Rechargeable batteries have lithium and cadmium or nickel and cadmium. Cadmium is the toxic heavy metal in these products. These should go to the Household Hazardous Waste collection.

Leftover paint has volatile and/or flammable components. If just a little is left in the can, leave the lid off so it will dry out before putting it in the dumpster. Some convenience centers will take cans of unused paint to set aside but not all of the convenience centers do this.

Of course, any “-cide” product is hazardous: pesticide, herbicide, insecticide, etc. Many garden products and cleaning products are hazardous. Please be sure to read the labels about the proper disposal of these products.

Institutional Protocols

A major difference between industrial and educational labs is that the variety of chemicals used changes weekly in the educational process. Ongoing (although sometimes, silent) issues in Union’s Chemistry Department are safety for our students, rigor for their educational experience,
and maintenance of our “Small Quantity Generator” EPA status for chemical wastes. We neutralize, minimize, and consolidate our wastes. It is a science in itself to accomplish this latter goal.

Mr. Giley Wright, laboratory manager of Union University Chemistry Department, has done marvelous work in the area of Waste Management Protocols. We hope to collaborate in writing and publishing some of our protocols (also known as “Standard Operating Procedures”, SOPs) for other waste managers. Union’s Chemistry Department has identified five waste “streams”: heavy metals, organics, halogenated organics, cyanide families, and elemental mercury.

1. **Heavy metals** are used in several classes. Many classes (and high schools) have discontinued using lead and mercury compounds because the cost of disposing of them is so high. Even a small quantity takes a separate 5 gallon bucket for its lab pack.

The SOP for metals is to precipitate the metal ions out of their solutions, dry them, and put them in a plastic “baggie.” This greatly reduces the volume and the cost of disposal. But what about the remaining liquid? Is it safe to just pour it down the drain? An overriding policy of EPA and OSHA Laws is that “if in doubt, test for it!” Heavy metals effluent projects are to verify that the effluent liquid from our metal wastes using our SOP (Standard Operating Procedures) is below the legal tolerances for EPA waste water.

An interesting side project involves barium. Our SOP calls for the solution to be made slightly basic. This precipitates most metals. Then when the solid is separated by decanting or filtering, the liquid is tested with hydrochloric acid until slightly acid to get silver, lead, and any mercury ions out. After separating any solid by decanting and/or filtering again, a small portion of the liquid is tested alternately with acid and base to make sure there are no more metal ions to come out of the solution. Barium is sneaky, however, because it can form complex ions with chloride (from the acid) and hydroxide (from the base)! Remember that if a substance is an ion, it can dissolve in water. Barium forms a white precipitate with sulfate. So, we then treat the remaining liquid with a neutral sulfate solution to get the barium to precipitate out.

The remaining effluent solutions can be tested by instrumental methods of Spectroscopy or Atomic Absorption to determine exactly the metals still remaining and their concentrations in the effluent. Our goal is to verify these levels are below EPA standards. These tests get really tricky and involved if there are mixtures of metals.

2. **Organics** are disposed of annually and eventually are incinerated. Halogenated organics cannot be incinerated so they are more costly to dispose of. These treatments are done by commercial disposal companies.
Some of our solvent wastes, namely methylene chloride and acetone, have been distilled and reused in classes other than Organic Chemistry, which needs more purity in the reagents used. When the cost of the recycling exceeds the cost of purchase and disposal, those activities are discontinued.

3. **Cyanide family** wastes are treated with sodium hydroxide and household bleach to reduce them to carbon dioxide and nitrogen gases. The solution is then neutralized and is safe to be poured down the sink!

4. **Elemental Mercury** (from broken thermometers, mostly) we retrieve and recycle. It can be used in pressure experiments and demonstrations and as a barrier medium in organic experiments that use gaseous reagents like hydrogen. Remember when we used to play with mercury? We loved to see it roll around and scatter into droplets then come together again. Some of those droplets could be lost and evaporate, building up into a toxic air problem. Cuts or abrasions in the skin could be a problem, too, when handling mercury with bare hands.

Hazardous chemicals must be managed. If they are put into landfills (or worse, left lying around) there is a possibility of them becoming contaminants in ground water, wells, and our drinking water. Many of the heavy metals have similar chemical properties as do calcium and phosphorus. If these chemicals get into the body, they can rob the bones and blood of their beneficial metals. By so doing, they can cause mental retardation in small children and chronic toxic conditions in adults. It behooves all of us to be good stewards and do our best to dispose of all hazardous chemicals sensibly and legally.
Arithmetic Sequences, Diophantine Equations, and the Number of the Beast
by Bryan Dawson

Here is wisdom. Let him who has understanding calculate the number of the beast, for it is the number of a man: His number is 666.

—Revelation 13:18 (NKJV)

“Let him who has understanding calculate”; can anything be more enticing to a mathematician? The immediate question, though, is how do we calculate—and there are no instructions. But more to the point, just who might 666 be? We can find anything on the internet, so certainly someone tells us. A quick search reveals the answer: according to the “Gates of Hell” website (Natalie, 1998), 666 refers to … Bill Gates III!

In the calculation offered by the website, each letter in the name is replaced by its ASCII character code:

\[
\begin{array}{cccccccccccc}
B & I & L & L & G & A & T & E & S & I & I & I \\
66 & 73 & 76 & 76 & 71 & 65 & 84 & 69 & 83 & 1 & 1 & 1 \\
\end{array} = 666
\]

(Notice, however, that an exception is made for the suffix III, where the value of the suffix is given as 3.)

The big question is this: how legitimate is the calculation? To answer this question, we need to know several things:

• Can this same type of calculation be performed on other names?
• What mathematics is behind such calculations?
• Have other types of calculations been used to propose a candidate for 666?
• What type of calculation did John have in mind?

Calculations

To answer the first two questions, we need to understand the ASCII character code. The ASCII character code replaces characters with numbers in order to have a numeric way of storing all characters. Capital letters are represented as follows:

\[
\begin{array}{cccc}
A & B & C & \cdots & Z \\
65 & 66 & 67 & \cdots & 90 \\
\end{array}
\]
This is, of course, an arithmetic sequence with first term 65 and common difference 1. But why use upper-case letters? ASCII lowercase is also an arithmetic sequence, with first term 97 and common difference 1.

That leads back to a modification of our first question: can other names be turned into 666 using these or other arithmetic progressions?

**Definition 1** A name is “beastable” if there exists an arithmetic sequence giving the name a replacement value of 666.

Let's use an example to illustrate the procedure of determining whether or not a name is “beastable.” We'll begin with the name Barack Obama.

To determine whether or not Barack Obama is “beastable,” we seek $a$ and $d$ for an arithmetic sequence yielding a replacement value of 666. We use the further assumption that the replacement rule uses the alphabet in the standard order, giving the following replacement rule:

\[
\begin{align*}
A & \quad B & \quad C & \quad D & \quad E & \quad F & \quad G \\
& a & a + d & a + 2d & a + 3d & a + 4d & a + 5d & a + 6d \\
H & \quad I & \quad J & \quad K & \quad L & \quad M & \quad N \\
& a + 7d & a + 8d & a + 9d & a + 10d & a + 11d & a + 12d & a + 13d \\
O & \quad P & \quad Q & \quad R & \quad S & \quad T \\
& a + 14d & a + 15d & a + 16d & a + 17d & a + 18d & a + 19d \\
U & \quad V & \quad W & \quad X & \quad Y & \quad Z \\
& a + 20d & a + 21d & a + 22d & a + 23d & a + 24d & a + 25d
\end{align*}
\]

Performing the calculation for Barack Obama yields

\[
\begin{align*}
B & \quad A & \quad R & \quad A & \quad C & \quad K \\
& a + d & a & a + 17d & a & a + 2d & a + 10d \\
O & \quad B & \quad A & \quad M & \quad A \\
& a + 14 & a + d & a & a + 12d & a
\end{align*}
\]

Add the values and we obtain a sum of $11a + 57d$. But notice the source of the coefficients: 11 is the number of letters in the name, and 57 is the sum using $A = 0$, $B = 1$, $C = 2$, ..., $Z = 25$. The process is therefore simplified as follows:
Step 1. Replacement Rule:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N</th>
<th>O</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>U</th>
<th>V</th>
<th>W</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
</tr>
</tbody>
</table>

Calculate the replacement value (the letter sum) $s$.

Step 2. Count the number of letters (the string length) $n$.

Step 3. Form the expression $n \cdot a + s \cdot d$.

But we want our expression to be equal to 666; we therefore have

Step 3 revised. Solve the equation $n \cdot a + s \cdot d = 666$ for integers $a$ and $d$.

In other words, we have a linear Diophantine equation to solve. Must a solution exist? Any elementary number theory textbook (c.f. (Burton, 2002)) will give the conditions under which such an equation has a solution:

Theorem 1 The linear Diophantine equation $na + sd = k$ has a solution in the unknowns $a$ and $d$ if and only if $g|k$, where $g = \gcd(n, s)$.

For us, $k = 666$, $n$ is the string length and $s$ is the letter sum. The theorem therefore translates as

Theorem 2 A name is "beastable" if and only if $\gcd(\text{letter sum}, \text{string length})|666$.

But what numbers divide 666? Since $666 = 2 \cdot 3^2 \cdot 37$, the factors of 666 are 1, 2, 3, 6, 9, 18, 37, 74, 111, 222, 333, and 666, yielding the following corollary:
Theorem 3 A name is “beastable” if and only if \( \gcd(\text{letter sum}, \text{string length}) \) is in the list \(1, 2, 3, 6, 9, 18, 37, 74, 111, 222, 333, 666\).

Since names are rarely 37 letters long, the only practical values to remember are 1, 2, 3, 6, 9 and 18—the factors of 18. Barack Obama's values from before are \( s = 57, n = 11 \). Since \( \gcd(57,11) = 1 \) and 1 is on the list — “beastable”!

We shall finish solving for \( a \) and \( d \) shortly, but first another example.

<table>
<thead>
<tr>
<th>J</th>
<th>O</th>
<th>H</th>
<th>N</th>
<th>M</th>
<th>C</th>
<th>C</th>
<th>A</th>
<th>I</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>14</td>
<td>7</td>
<td>13</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>8</td>
<td>13</td>
</tr>
</tbody>
</table>

Sum the values and we obtain the letter sum \( s = 80 \). The string length is \( n = 10 \). Then \( \gcd(80,10) = 10 \) and 10 is not on the list — not “beastable”! (Note: Sarah Palin is beastable and Joe Biden is not, so there was one potential beast on each ticket.)

Back to Barack. We know that the name is “beastable,” but we do not know the values of \( a \) and \( d \) that make it beastable. The key lies in using the Euclidean Algorithm and its reverse to write \( \gcd(\text{letter sum}, \text{string length}) \) as a linear combination of the letter sum and the string length. For Barack Obama, the forward steps are \( 57 = 5 \cdot 11 + 2 \) and \( 11 = 5 \cdot 2 + 1 \), yielding the backward steps of

\[
1 = 11 - 5 \cdot 2 = 11 - 5(57 - 5 \cdot 11) = -5 \cdot 57 + 26 \cdot 11.
\]

So what good does that do us? We want

\[
11a + 57d = 666,
\]

and we have

\[
11(26) + 57(-5) = 1.
\]

The next step is obvious: we multiply the last equation through by 666(!) We obtain

\[
11(26 \cdot 666) + 57(-5 \cdot 666) = 666.
\]
Hence \( a = 26 \cdot 666 = 17316, \ d = -5 \cdot 666 = -3330 \) will work. That’s an ugly solution, but it works.

We can obtain a nicer solution with a little more work:

**Theorem 4 (Burton, 2002)** If \( a_0, d_0 \) is any solution to \( na + sd = k \), then all other solutions are given by

\[
\begin{align*}
a &= a_0 + (s/g)t, \\
d &= d_0 - (n/g)t,
\end{align*}
\]

where \( g = \gcd(n, s) \) and \( t \) is an arbitrary integer.

A judicious choice of \( t \) can make the solution look much nicer. The trick to a nice solution is to get the smallest possible positive value for \( d \). The arithmetic is simple: using \( d_0 = -3330, \ n = 11, \) and \( g = 1 \), we calculate \( 3330/11 = 302.7 \) and use \( t = -303 \). Then

\[
d = d_0 - \left(\frac{n}{g}\right)t = -3330 - 11(-303) = 3
\]

and

\[
a = a_0 + (s/g)t = 17316 + (57/1)(-303) = 45
\]

is a nice solution for “beasting” Barack Obama.

Of course, this can all be programmed rather easily in Mathematica. The code, complete with the output for “beasting” George W. Bush, is below:

```mathematica
name = "george w bush"

george w bush

lettersum = StringCount[name, "b"]*1 + StringCount[name, "c"]*2 + StringCount[name, "d"]*3 + StringCount[name, "e"]*4 + StringCount[name, "f"]*5 + StringCount[name, "g"]*6 + StringCount[name, "h"]*7 + StringCount[name, "i"]*8 + StringCount[name, "j"]*9 + StringCount[name, "k"]*10 +
```
StringCount[name, "l"]*11 + StringCount[name, "m"]*12 +
StringCount[name, "n"]*13 + StringCount[name, "o"]*14 +
StringCount[name, "p"]*15 + StringCount[name, "q"]*16 +
StringCount[name, "r"]*17 + StringCount[name, "s"]*18 +
StringCount[name, "t"]*19 + StringCount[name, "u"]*20 +
StringCount[name, "v"]*21 + StringCount[name, "w"]*22 +
StringCount[name, "x"]*23 + StringCount[name, "y"]*24 +
StringCount[name, "z"]*25

119

numletters = StringLength[name] - StringCount[name, " "]

11

GCD[lettersum, numletters]

1

FindInstance[numletters*a + lettersum*diff == 666, a, diff, Integers]

a->-26,diff->8

Using the above code to “beast” names makes it apparent that the vast majority of names are “beastable.” In fact, the only names of well-known individuals that I have run across that are not beastable are John McCain, Joe Biden, and Tiger Woods.

**Historical Attempts**

Two of our original questions are left, namely

- Have other types of calculations been used to propose a candidate for 666?
- What type of calculation did John have in mind?
Let's turn our attention to other types of calculations of 666. There is likely only one type of candidate more popularly-mentioned for 666 than presidents. Below is Michael Stifel's calculation for "beasting" Pope Leo X (Tatlow, 1991):

- Step 1. Rewrite Leo X in Latin: LEO DECIMVS
- Step 2. Throw out the non-numeric letters E, O, S: L D CIMV
- Step 3: Rearrange: MDCLVI
- Step 4: Add back in the X (either from Leo X or from the number of characters in Leo Decimus): MDCLXVI
- Step 5: Remove M, the initial in mysterium (Latin for religious mystery): DCLXVI

That's 666! Convinced?

So, who was Michael Stifel? Born in 1487 in Esslingen, Germany, he was a mathematician at the University of Königsberg and later at the University of Jena. Stifel invented logarithms independently of Napier (using a different approach) and is also noted for his *Arithmetica Integra* (1544), which contained binomial coefficients and the notations +, -, and \( \sqrt{ } \). Stifel notoriously predicted the world would end October 19, 1533, at 8:00 a.m.; he was taken into protective custody that day at 8:30 a.m.

Michael Stifel wasn't the only one who made such claims. John Napier, in "A Plaine Discovery of the Whole Revelation of St. John" (1593), claimed his calculations proved that Pope Clement VIII was the antichrist. In the same text, Napier also predicted the end of the world in either 1688 or 1700 (at least Napier was smart enough to choose a date beyond the end of his lifetime!). Interestingly enough, Napier considered that book to be his greatest achievement. So, the next time a mathematician tells you the date of the end of the world, ask if he independently discovered logarithms when he was a child. If so, let me know!

This leaves us with one last question—what might John have been thinking? The Greek text of Revelation 13:18 writes 666 this way: \( \chi \xi \zeta ' \). There were no Greek numerals; letters were used followed by ' , which indicated a number instead of a word. Letters were given values, but not as an arithmetic sequence. The code used, the Greek gematria, is as follows:

\[
\begin{array}{cccccccccc}
\alpha & \beta & \gamma & \delta & \varepsilon & \zeta & \zeta & \eta & \theta \\
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\
\iota & \kappa & \lambda & \mu & \nu & \xi & \omicron & \pi & \rho \\
10 & 20 & 30 & 40 & 50 & 60 & 70 & 80 & 90 \\
\rho & \sigma & \tau & \upsilon & \phi & \chi & \psi & \omega & \varsigma \\
100 & 200 & 300 & 400 & 500 & 600 & 700 & 800 & 900 \\
\end{array}
\]
Since Greek uses 24 characters and 27 were needed for this scheme, note the use of the archaic letters stigma for 6, qoppa for 90, and sampi for 900.

The use of the Greek gematria for calculating 666 is also well known. Therefore, we can once again consult the internet to determine who might be “beastable” using this method. According to Walter R. Dolen (Dolen, 1998), the answer is William J. Clinton! A quick look at his calculation, though, will reveal that he cheated, using 0 for the value of $\alpha$ (the “a” in William).

Keeping with the theme of presidents and popes, here is Martin Luther’s calculation:

\[
\begin{align*}
\beta & \quad \varepsilon & \quad \nu & \quad \varepsilon & \quad \delta & \quad \iota & \quad \kappa & \quad \tau & \quad \omicron & \quad \sigma \\
2 & \quad 5 & \quad 50 & \quad 5 & \quad 4 & \quad 10 & \quad 20 & \quad 300 & \quad 70 & \quad 200 & \quad = & \quad 666 \\
\end{align*}
\]

Luther concluded that 666 may refer to a pope named Benedict or to a Benedictine monk.

A more interesting calculation is due to Ethelbert Stauffer (1902–1979), a German theologian. He used the following abbreviation of the Greek version of the official title of the Emperor Domitian, taken from coins in use at the time:

\[
\begin{align*}
\alpha & \quad \kappa & \quad \alpha & \quad \iota & \quad \delta & \quad \omicron & \quad \mu & \quad \varepsilon & \quad \tau & \quad \sigma & \quad \epsilon & \quad \beta & \quad \gamma & \quad \epsilon \\
1 & \quad 20 & \quad 1 & \quad 10 & \quad 4 & \quad 70 & \quad 40 & \quad 5 & \quad 300 & \quad 200 & \quad 5 & \quad 2 & \quad 3 & \quad 5 & \quad = & \quad 666 \\
\end{align*}
\]

Domitian was the Roman emperor when John wrote Revelation, and was, in fact, responsible for John being exiled to the island of Patmos where the book was written. According to Stauffer, there is additional evidence from Revelation that points to Domitian as 666. If this troubles the reader, recall that there are many instances of biblical prophecies, especially from the Old Testament, that have both an immediate fulfillment and a future fulfillment.

**Conclusion**

So what can we conclude from all this? First, most names can be “beasted” by using arithmetic sequences; such sequences are, therefore, absolutely useless in determining 666. Secondly, since the Greek gematria was the standard encoding of letters to numbers in the language John used, almost assuredly its use is the method meant by John. But since many names can also be “beasted” using the Greek gematria, we should be cautious about drawing conclusions based on the calculation itself without supporting evidence, such as conforming to other characteristics mentioned in scripture.

Finally, I should include a warning: The information you have learned in this article is dangerous. Do not use the methods contained herein to “beast” any member of the Union community or other individuals you know with an arithmetic sequence. What you may enjoy as a practical joke may not be taken as a joke by others who are unaware of the ubiquitous nature of such calculations. Trust me!
Bibliography


Introduction to Poetry and Photography

by Kenneth Newman

During a writing workshop in 1990, I wrote “The Old Beech Tree” following a visit the previous fall to the Britt home place in Beech Bluff, Tennessee. As part of the workshop, after we had completed our piece of writing, we passed it to the person on the right for him/her to add the concluding two lines, followed by a discussion of the piece. The person to my right was Ruth Otey (now deceased), a fellow English teacher. Much to my surprise, we concluded that my piece should be a poem.

In May, 2006, I was invited to present professional development for Beech Bluff Elementary teachers on their final day of school. I was asked to combine writing and children’s literature. I chose “A Sense of Place” as my theme and included “The Old Beech Tree” as an example of writing about “place.” As I prepared for the day, I became inspired to write more about the Beech Tree and the homeplace. Thus, “The Homeplace Beckons” began to take shape. First written in narrative form, as I read and reread, it seemed more like poetry. Since it was a companion piece to “The Old Beech Tree,” I began playing with divisions to make “The Homeplace Beckons” appear more poem-like. This coming fall, my son and I will take my oldest grandchild to the old homeplace, and the tradition will continue. Will there be another poem? Well, we’ll wait and see.
The Old Beech Tree
by Kenneth Newman

I walked deep into the woods; the faint path ended.
I stopped. I surveyed my surroundings.
To my left stood the Old Beech Tree, familiar only from family stories. Beyond the tree I spotted a crumbling chimney, the only remnant of my great uncle’s home, soybeans planted all around it. To my right the hint of a lawn: brambles, overgrown shrubs, flowers gone wild. Peering closer, I saw a pile of rubble, the remains of my great-grandparents’ home, abandoned, left to collapse. Sadness crossed my heart. This thought crossed my mind: “Where are the happy voices, the inhabitants that once laughed, loved, lived in this idyllic setting?” Time has taken its toll.

That is sad but true.
We do grow old!
The Homeplace Beckons
by Kenneth Newman

I walked that August day where my ancestors had walked.
Alongside me walked my son,
who now walked where his ancestors had walked.

In front of us were the main players in this unfolding drama—
my mother, my uncle, their first cousin.

As we walked down that dirt road-bed, it seemed as if sixty-odd years just melted away as the players reminisced.

In front of us loomed the Old Beech Tree, so familiar from family stories that you’d recognize it anywhere.
“Look, there it is” echoed across the valley as those now transformed into 8-9-12 year-olds excitedly rushed toward the tree.

“Remember when you boys…” “Look, there’s where…” “Remember that time…”

My mother recalled when they played school under the Old Beech, the canopy of branches their roof. “Floyd, remember how you were always the teacher.” “Yeah, and remember how hard you’d switch us if we didn’t obey you,” my uncle added.

My uncle, hands placed on the trunk, peered up into the majestic branches. “Can you still see the initials?” he wondered. “I see some way up there.” A “B” was visible, another “B,” yet another, but, after all, this was the Britt homeplace.

Time had taken its toll on the initials even, for they were all misshapen bulges in the weathered bark.

My son, armed with pocketknife, matter-of-factly began carving his own initials into the tree, just as if that had been the sole purpose of the trip. My uncle began instructing him, “Here, this is the way to do it…”
Decades later, my son was adding to the legacy, just as I had done at least 25 years earlier. To the right of the Old Beech, up a slight incline, was the homeplace of my great grandparents, now fallen into ruin.

“Look, that’s where Grandma’s hollyhocks grew.” “I wonder if any of that old rosebush is still there?” “Remember those morning glories on that old fence?”

As I looked and listened, in my mind’s eye I saw Grandma, known only through the pages of the photo album, standing there all solemn, hair pulled back in a bun, white long-sleeved blouse buttoned to her chin, long black skirt sweeping the ground, covered by a long white apron, holding grandbaby Lula, whose mother had died from milk leg following childbirth—so the story went.

I imagined Grandma wondering who these two strangers were standing there with her other three grandchildren, worrying if there would be enough supper to feed these two extras. “Grandma, can’t you see, we are your grandchildren, too,” I wanted to plead.

No one in the family had had the heart to dismantle the old homeplace, so it had been allowed to crumble on its own, now overtaken by honeysuckle and blackberry vines, preventing our getting any closer. Well, that, and cries of “Watch out for snakes everybody!” and “Remember, there are rattlers in these parts!”

Looking due east from the Old Beech, we saw a chimney, the lone sentinel, heralding where my great uncle’s house had stood. The yard, now a soybean field, bore little resemblance to a homeplace, other than the chimney, left there by the cousin with us, a memorial to what had been.

As we approached the chimney, I imagined Uncle John, newly widowed, with his brood of children, relying on his aging parents to help out, prior to his quickly remarrying (this always stated in hushed tones) and starting another family.

I knelt there in the dirt and started digging with a stick. I unearthed a fragment of broken pottery, perhaps part of a bowl. I scraped the dirt off with my thumbnail, picturing Aunt Tempie, long deceased, mixing biscuit dough for her farmer husband and her house full of kids.

Lost in my own reverie, I paid little attention to whatever stories were being exchanged by the main players. I only knew that I had connected with my past, with those gentle souls, long gone, who are part of who I am. My son, carving his own initials into the tree, was making his own connections to be recalled in some future time, perhaps when he, as a rite of passage, brings his own child to the homeplace.
Kenneth Newman
May 5, 2006
Dear Ones,

I cannot remember if I wrote last winter! We have been doing fairly well. In May, I brought something home from school and shared it with Christopher (We share everything, you know). It started out like a snuffle and quickly moved to the chest. By the time we got it under control, Christopher was diagnosed with pneumonia and I was on predesone. We are much better now that summer is here.

We started having kids the last Friday in January. Ebony, our Nubian goat, had her newly born kid, Ellen, in the goat yard down by the green hay barn. So we enclosed a pen for her in the brown barn up closer to the house. About 12:30 a.m., I was up grading Physical Science finals when I heard a racket outside. I went to the back door where Luckie’s Louisa was crying on the back step (out of the yard!). When I opened the door, I heard Ebony’s deep wailing cry. I knew something must be wrong, so I pulled a hooded sweatshirt over my night clothes, jumped into my boots (without socks) and grabbed a flashlight and headed to the brown barn. When I got there and looked in, there was no baby Ellen in the stall! Christopher came out with his flashlight and we searched all over. Wilbur, the pig, came out of his house grunting, but we ignored him because we were searching for the kid! Christopher was getting cold and sick so he went back in the house. I headed down toward the pond when Ebony called out again in her wailing deep voice, and I heard the kid answer! It sounded like it was just beyond Wilbur’s yard. Ebony called again and the kid answered. This time I was behind the brown bar by Wilbur’s yard and heard the kid’s sweet little voice from Wilbur’s big spacious dog house! The kid was toasty warm in a back corner of Wilbur’s house and did NOT want to come out! I had to get down on my hands and knees to drag the kid out to take her to her mother so she could nurse! Needless to say, after that, the kid went into a big plastic bin with warm towels with the heating pad under her at the foot of our bed! Wilbur received vanilla wafer cookies every day for a week!

During February, we had 5 baby goats in our laundry room bathroom. About noon Christopher took them to play outside and be with their moms for lunch. Early in the mornings I just brought the moms to the back door to let the kids have “breakfast” then put them back inside until it got warmer. Then at 6 p.m., I would bring them in again. Ebony, our Nubian, had a big bag but was not able to let her milk out. Maggie had two kids, Melvin and Milli, and she would take on others, but she really did not have enough milk for everybody. Doris was nursing her two, Darren and Dottie, but she was not happy about it! She still had enough extra to feed Ebony’s Ellen a 4 oz. bottle morning and night. So, I milked her out every night and we still had some to freeze!

The next batch of kids was born near the 4th of April. One kid, Larry, was born to Lara during my birthday celebration! What a party activity! So Larry and his two half brothers bring our
total of kids to 8 this Spring. I did not milk except to bottle feed the kids during school. Now that school is out, I am milking Doris and Maggie morning and night every day and getting a little more than a gallon of milk per day. We try to wean the kids when they are four months old. They could be weaned as young as two months, but I did not want to have to do the milking during the school year!

We have hired some teenagers temporarily this summer to help with some special projects. The two brothers have been putting a pen around the pond for the pigs. (Say that fast three times!) Ms. Piglet got out of her yard and was heading for the blueberry bushes in the front yard when Christopher redirected her into the dogs’ 6x10 foot kennel. Now that the weather is getting hotter, we are anxious to transfer Ms. Piglet and Wilbur to the shaded pond area. That in itself is going to be a task. More later on that….

Christopher has harvested all the turnips. They are so sweet! We have enjoyed turnip and mustard greens and now the turnips. Tomatoes are not yet bearing but we have had a few yellow beans and green onions.

Our little Jack Russell Terrier had puppies about the 12th of May. On Friday, June 26, 2009, we took everybody (cats and dogs) to the vet’s in Trenton. What a carload! I had, by accident, hit Lulu, our English bull terrier, with the truck the night before. There were no bones broken. (Praise!) Her front left shoulder is tender, though. The puppies got their first shots; Suzie and the 3 of the cats got rabies shots, worm medicine …. Fritz, Christopher’s daschund, just went along for the ride. We put everybody in the car because it was already hot at 9:30 a.m. We had the puppies in their cage, but they made such a racket that the cats complained. No amount of ‘50s “oldies” music could drown everybody’s noise out! Christopher put the puppies’ cage in the trunk and the puppies stayed on the floor opposite Lulu’s place, so the cats could ride in peace in their cage while Suzie and Fritz were in the front seat with me.

Such is life here now. Love to you all.

Marlyn and Christopher
Who Am I?
by Marlyn Newhouse

I am a woman, a wife, a child of God, an educator, one who nurtures not only my students but my friends and colleagues, encouraging them on to better, higher, more positive thoughts and to stretch themselves to reach their goals, not mine.

Just because I am compassionate, easy to entreat, and soft hearted does not mean I am soft headed. I have given failing grades to those who, by their own neglect, stop trying. I cannot teach someone who is not bodily present.

I have a “live and let live” attitude to most things, but if I sense unfairness, I am determined to try to right the situation. Sometimes, this action is not really in my own best interests.

Having made mistakes and messes in my own life, I am reluctant to judge another’s mistakes. If I see a familiar situation, I try to encourage and comfort the other with anecdotes of my own past and what helped me get through the problem.

I like me. I am comfortable with just a few friends. I enjoy being with “critters.” They usually have no guile. They do have agendas! These are readily seen and mostly I try to accommodate them if I can.

Marlyn Newhouse
Oct. 15, 2008
Brief Statement about Poetry and Visual Art

by Chris Nadasky

These poems are a part of a series of works I have been thinking about for the last several years. Often, I will write a poem as I am considering how to work out the visual problems in a piece. One poem reflects a form of poetry that allows for multiple and parallel interpretations, dual combinations of poetic symbolism that can be read as two separate poems or one complete poem.

These works are about the sense of loss and confusion I have when I consider culture and my place in it. The product of our time seems to be a kind of paradox: a struggle between the natural and the artificial—an appreciation for the beauty of nature, yet a denial of the One Who created it. Society worships nature and technology at the same time, but, ironically, the technocratic philosophical model (in place since the Enlightenment) determines how we should think about each. Thus, our cultural thinking is unfairly biased.

I am fascinated by the ways that human beings impose order on the chaos that surrounds them. Often, I do not understand what a piece of technology will do, yet I find myself appreciating it anyhow. In these few pieces I am trying to reference the industrial, the technological, the electrical, the mechanical, the organic, the human, and the archeological. What will future civilizations find when they dig up our leavings? If change does not come— and soon—I fear we will leave behind a dark cultural legacy, a memento mori (remembrance of death) that leaves behind no hope for the future.

My work seeks to make the viewer think about the relationship between technology and the human condition. By placing the polar opposites of mechano-technological and organic forms in juxtaposition, I hope to stimulate conversation about the fragility of human existence, our reliance upon forces outside of ourselves, and the type of archeological evidence we are leaving behind as a culture.

The symbology found in this body of work is intentionally vague, forms are taken from the things that surround us every day. The symbology is referential, but not recognizable, intended to convey meaning through an emotional response connected to a deeper and often unconscious perception of our environment.
The color in this work is intended to convey the sense of age that one sees and feels when viewing the bones of dinosaurs and archeological digs—bits and pieces of the flotsam of history. There is beauty here, too. It is interesting to consider how natural forces affect the shapes and colors of things long gone. The work is generally displayed in a formal setting and is intended to be viewed as such things might be displayed in a museum.

The work is purposefully mixed media, including things that we see every day pressed into, through, and attached to the clay substrate. These are referencing forms often found by archeologists, like the extinct arthropods found between layers of rock. Often, all that is left behind is the impression of the physical substance of the object. There are also references to the human form and structure.

My desire is that you will find in these works of art and poetry a new or different interpretation of our society and the need it has for the Christian perspective.
Extraction of the Stone of Madness

by Chris Nadasky

Like a painful stone
or an irritating rash
violence saps the strength
of the people.
Change comes too slowly
takes a stealthy approach
and continues to walk
the frozen wastes.
Love does not pass the steeple–
a still small voice unnoticed
begs for less talk
and more action.
No trephination
will extract the madness.
Who will care for us
when we care not for ourselves?
Hieronymus knew.
Indifference and haste,
a heady concoction,
holding genes at arm’s length
comes so easily,
and no scratching will relieve
that awful itching.
No place for the stone to go
but through.
Hypocrisy yanked out
will surely hurt
and that hole creates such a draught.
Dad

by Chris Nadasky

He used to flip his hair
from side to side,
over the rim of his thin black glasses
that were his favorites
the ones with the diamond-shaped inlay
Life for him was a challenge
of problems to be solved
the adventure of finding
sharp-eyed and curious
saving the bits and pieces
of discarded machinery
the flotsam of used things
his island of misfit toys.
I loved him deeply, dearly
he is gone now
the work ruined his health,
the only challenge he could not solve
in the end, the greatest
adventure of finding
what
he was looking for
Imprimatur (Let It Be Printed)

by Chris Nadasky

Books fester on crowded, dusty shelves;
bound pages, slaves to their structure,
lonely and worn-out.

Like me
a product of things
out of their control.

No one ever asked me if I wanted to have cancer—
not a part of my story.

The library is full of us; hospitals, too.
Between the pages fingerprints
and bits of discarded food,
the chemical drip of departed days;
I feel each one deep in my spine,
eyesores and distractions,
lesions—they scream for attention.

“Read the words!”

Look on me, live your Life!

turn your pages,
dog-ear the good ones, because
books fester on crowded, dusty shelves;
bound pages, suffering the tragedy of closure.
Contributors

**Janna Chance**, Assistant Professor of English, received her Ph.D. from Rice University and has been teaching at Union since 2007. This is her first year serving as *JUFF* editor.

**Bryan Dawson** was born to be a square on 9-16-64, but married prime on 7-18-87 (71887 is prime). He is in his twelfth year at Union and currently serves as chair of the Department of Mathematics. His article was previously published in the Proceedings of the Seventeenth Conference of the Association of Christians in the Mathematical Sciences.

**Judy Bussell LeForge** currently serves as Associate Professor of History. She has been employed by Union University since 1999. This article appearing in *JUFF* will be published by the *Alabama Review* in early 2010.

**Christopher Nadaskay** is a resident of Milan, by way of Arkansas, Texas, Missouri and New Jersey. A Professor of Art at Union for 16 years, he is a graduate of Southern Arkansas University and Texas A&M Commerce where he received his B.A. and M.F.A. in Painting/Mixed Media respectively.

**Bill Nettles** received his Ph.D. degree in physics from Vanderbilt University. He is Professor and Chair of the Department of Physics at Union University. His current interests are physics pedagogy, physics awareness for the public, and testing the conservation of angular momentum on his motorcycle. He also enjoys working on cars and can’t wait for his Mustang to get out of the paint shop.

**Marlyn Newhouse**, Associate Professor of Chemistry, has been at Union since 1993. Since her background is teaching science in public middle schools, she is fond of saying that she “spent 6 years in 6th grade.” She and her husband and have a little country farm near Spring Creek, Tennessee, where they can enjoy their "critters' and restoring antique autos.

**Kenneth Newman**, Professor of Educational Leadership, serves as the Director of the Ed.S. and Ed.D. P/12 School Leadership programs on the Jackson campus. Prior to coming to Union in 2000, he served in the Jackson-Madison County Schools as a classroom teacher and supervisor of instruction.
Randal S. Schwindt, Ph.D., P.E., is Associate Professor of Engineering in the Department of Engineering at Union University, where he is in his sixth year of service. He is also the Director of the West Tennessee Regional Science and Engineering Fair and the President of the Union University Faculty Forum.

Carrie Whaley, Professor of Education, is a Union University alum who returned to Tennessee and Union in 1997. An abbreviated version of this article was published previously in *Christian Early Education*, the journal of ASCI.