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The Journal of the Union Faculty Forum, now in its 37th volume, consists of scholarly articles and creative works from all areas of study. The journal is published during each fall semester. The editors invite submissions of poetry, fiction, creative nonfiction, artwork, and scholarly articles in various academic disciplines. Acceptance is determined by the quality of the work. Please submit all works through the JUFF website: uu.edu/journals/juff.
A WORD FROM THE UNION FACULTY FORUM PRESIDENT

Scholarship takes diverse forms such as basic research, teaching, service, and creative works. The scholarship of the Union University faculty represented in this edition of the *Journal of the Union Faculty Forum* is similarly diverse. While much of the diverse scholarship of today’s academy achieves a kind of excellence in itself, it is often self-referential and, taken as a whole, not cohesive. However, I am grateful to be a part of an academic community whose work is diverse and excellent while still finding coherence in Jesus Christ our Savior and His gospel. As Christian scholars, our eyes are opened to see the gospel in its various facets of Creation, Fall, and Redemption in the work of all scholars; that is, every scholar studies one or more of these facets of the gospel whether or not he or she knows it. In some articles in this edition of the *JUFF*, you may find that the Lord is “out front,” but in all of the work, Christ is preeminent.

Please join me in thanking our contributors to this volume and in learning with them!

Randal S. Schwindt
Audiobooks: Ancient Orality, Modern Technology
Jay Beavers

Suffering to Sing: Review of Christian Wiman’s Every Riven Thing
Joy Moore

“What Parents Don’t Know About Comic Books”: Fredric Wertham and the Battle over Comic Books in the 1950s
Chris Blair

Depression in the TV Newsroom
Steve Beverly

Reflections
Beth Madison

Race, Religion, and Region in Flannery O’Connor and Federico Garcia Lorca
Roger Stanley
### Fractals, The Trinity, and Music
Joshua Veltman
58

### Consumer Goods and World War I
Jimmy H. Davis
76

### Announcement
Patricia L. Hamilton
79

### A Father’s Thoughts
Lee Benson
80

### Trappin’ Mama
Walton Padelford
82

### Biographies
85
Audiobooks: Ancient Orality, Modern Technology

Jay Beavers

A recent article in the New York Times featured the work of George Guidall, narrator of more than 1,300 audiobooks and the “voice of choice” in the growing audiobook industry (Ball). Though many still question the legitimacy of “reading” a book without once staring at a page, the audiobook industry has continued to grow steadily, and the use of audiobooks is becoming more widespread among educators as well as those simply reading for pleasure. Many, like Guidall, argue that audiobook narration is a way of connecting with the most ancient forms of oral storytelling and that it establishes a more intimate connection between listener and story. On the other hand, many insist that audiobook listening results in an impoverished experience of literature.

Although the audiobook’s share of the reading public’s attention is ever growing, the audiobook as a medium has received little critical attention. Increasingly, English teachers and literature professors are experimenting with the pedagogical usefulness of audiobooks in the classroom, but few have written on the nature of reading itself and how the increased use of audiobooks may either reflect or create a change in the way people read. Scholars like Walter Ong have studied the nature of oral cultures and speak insightfully into the differences between, for instance, the oral culture that spawned the Odyssey and the written culture that gave us Ulysses. In tracing the development of the audiobook and coming to a better understanding of Ong’s theory of orality and “secondary orality,” we will see that audiobooks do not in themselves recapture the oral tradition of ancient times but do emphasize the elements of orality that persist in a predominately literary world. Such developments may even enable authors to pursue a more fully oral form of literature in the future.

According to Walter Ong, the purely oral culture had different expectations about “literature” (the word is, strictly speaking, inappropriate for works that were never written down) and how it should be formed and received. He sets out several contrasts between oral and written literature. The first and perhaps most important distinction is that oral literature is organized around a need to be easily recalled, which gives it certain distinctive characteristics: rhythm, repetition, antithesis, alliteration, assonance, epithets, or other formulary expressions (34). Because of the focus on literature that could be easily remembered, oral cultures
did not develop and could not conceive of abstract categories of information such as we have in modern science. Instead, they relied on narrative of human action to organize and retain information (43). Oral literature is “additive rather than subordinative” (37) in its syntactic structure, preferring polysyndeton (the repetition of conjunctions like “and” to add description and detail) rather than subordination. It is redundant in that it repeats concepts for the benefit of the listener whose mind may have wandered (39). It is conservative, valuing the memories of the old rather than the discoveries of the young (41). It is focused on human knowledge that is situated in the context of struggle, and it is empathetic, fostering community engagement (43-46).

Oral literature differs from written text in other ways as well. Ong notes that the spoken word is evanescent while the written word is permanent; by the same token, spoken words are active while written words are passive. With the advent of writing, then, the dynamic sound of oral literature was transmuted into a static space on the printed page (81). So the spoken word, being a sound, has a unique relationship with time in that it can only ever exist in the present (32). It may be that our tradition of referring to the events in printed literature in the present tense defers to the beginnings of literature as oral tales that only ever existed in the present. (Clearly the practice was not adopted because it is intuitive, as any freshman composition teacher can attest.) To Ong’s descriptions of oral literature we can also add the element of vocal performance and interpretation that the oral storyteller must have incorporated consciously or unconsciously to his tale.

The upshot of Ong’s theory of orality, however, is that it no longer exists in any pure form. We now live in a culture shaped by centuries of written literature that have fundamentally influenced the way we perceive the world. While this is outside the realm of our current discussion, it is important to note that Ong’s theory precludes any possibility that truly oral art forms have survived into the twenty-first century. At best we now have what he calls “secondary orality,” which has many of the same qualities of an oral literature but is ultimately based on print sources and cannot exist outside of them:

With telephone, radio, television and various kinds of sound tape, electronic technology has brought us into the age of ‘secondary orality’. This new orality has striking resemblances to the old in participatory mystique, its fostering of a communal sense, its concentration on the present moment, and even its use of formulas...But it is essentially a more deliberate and self-conscious orality, based permanently on the use of writing and print, which are essential for the manufacture and operation of the equipment and for its use as well. (Ong 133-34)
Ong’s book on the subject, *Literacy and Orality*, is the story of the evolutionary process by which the stronger literacy supplanted and destroyed the weaker orality. From this perspective, the audiobook cannot truly represent a return to orality but only a residual trace of orality that is dominated by literacy. Obviously, the content of the audiobook is contingent on its printed original, but Ong also points out the ways in which even the production and consumption of modern technology are yet another evolution of humanity’s manipulation and preservation of information that is itself dependent on the written word. In other words, the electronic audiobook is only possible in a world shaped by the written word. Powerful as this argument is, however, it tends to overlook some of the subtler ways that orality and literacy interact with and affect one another throughout human history. Indeed, as we will see, orality has not simply disappeared with the advent of literacy but has simply altered in relationship to the written or printed word.

Authors like Joyce Coleman and David Vincent point out that Ong’s theory adopts an evolutionary model that lacks nuance and forces certain conclusions that do not always match the evidence. Coleman puts it this way:

Based as it is on the heavily goal-oriented, teleological model, Ong’s story always has to be the extinction of one mode in favor of the other; evolution, not coexistence or covariation. Since this evolution has the status of a natural force, there is no need to provide any more sophisticated conception of how it proceeds than the unexplicated mechanism of “interiorization.” Although the evolutionary schemas popular in earlier literary histories have been falling out of fashion, Ong and his followers preserve the system in nearly its original form. Once a more efficient storage mechanism – writing – has become available (and has been sufficiently “interiorized”), orality – the less efficient solution – will drop away, just as nature selects the more favorable biological adaptation. Any hangover from one state into the next is dismissed as “residual orality” or “oral residue.” (17)

Or, we might add, “secondary orality.” Coleman demonstrates that this model ignores evidence that elements of the oral tradition survived well into the medieval period and even beyond (18-19). She goes on to suggest that orality and literacy are not polarized opposites but mixed forms of communication that can exist stably in a culture, altering only in relative periods of dominance. Vincent too notes this trend in his study of literacy in England between 1750 and 1914:

Reading and writing did not drive out the spoken word but rather set up increasingly complex relations between the modes of communication, in
the same way that in this century the radio and then television have coexisted with print, altering but not necessarily abolishing its functions. (273)

Ong himself states that orality cannot ever be completely erased from a culture (172). He seems to think, however, that the forms of orality remaining in a predominantly written culture are necessarily contingent on prior writing or print, and this is the point on which Coleman takes issue.

Coleman offers the term “aurality” to describe a reading performance based on a written text rather than on a bard’s memory (28). Despite this basis in print, however, there remain many elements of orality in a public reading. First, like a purely oral performance, public readings emphasize the group dynamic and are a social event (29). Even today, live readings elicit a group response as the audience laughs or gasps simultaneously. This same communal element would have existed in the strictly oral culture as well. Then, there is the element of performance or drama that the reader lends to a text by adopting different emphases, voices, or dialects as the text demands (30). Finally, Coleman points out that public readings were generally perceived as an enjoyable social experience, which contributed to them remaining a popular form of entertainment. Thus, the experience of public reading cannot accurately be classified as either purely oral or purely textual but is better understood as a mixture of the two and so deserves to be treated as a phenomenon in its own right:

Public reading, therefore, is like and not like private reading, and like and not like bardic or minstrel performance. To insist that this unique and complex phenomenon can be viewed only as a subform of orality or literacy is like treating all greens as shades of either blue or yellow. It’s a valid procedure if you’re trying to investigate primary colors, perhaps, but not conducive to further understanding of green itself. (Coleman 32)

It is worth noting that public reading continued to be popular long after the printing press made literacy more common and silent reading the accepted norm. Writing and printing did not eliminate orality but merely altered its expression. It was not writing, but primarily television that removed public reading from common practice in America (Kozloff 84). I would argue that, as a descendant of public reading, the audiobook format deserves to be understood in much the same way as public readings. It straddles the line between orality and literacy and has done so since its inception.

It may be helpful to think of public reading as we now experience a live performance of music. For the medieval reader that Coleman has in mind, reading
was first and always a public and aural act. Similarly, musicians today read music in order to perform it. Most of us have no appreciation of written music that is not performed. Music left to sit on the page and not transmuted into sound is simply not music for our modern world. It may, at best, be music in potentia. In the same way, words on a printed page in the medieval period were not read until they were spoken aloud. Furthermore, prose and poetry were written according to the rules of orality and with the expectation that they be read aloud. Chaytor makes this point in his comparison between the modern and the medieval reader:

Two points, therefore, must be emphasized at the outset. The medieval reader, with few exceptions, did not read as we do; he was in the stage of our muttering childhood learner; each word was for him a separate entity and at times a problem which he whispered to himself when he had found the solution; this fact is a matter of interest to those who edit the writing which he produced. Further, as readers were few and hearers numerous, literature in its early days was produced very largely for public recitation; hence, it was rhetorical rather than literary in character, and rules of rhetoric governed its composition. (qtd. in McLuhan 101)

Our rules of grammar and composition are a result of minds long formed by the printed word and the need for greater clarity in silent reading. Public readers, however, were much more interested in clarity for the ear, and it is this same quality that audiobook narrators aspire to.

One other potential antecedent of the audiobook worth pointing out here is the radio drama. Sarah Kozloff suggests that the radio dramas of the thirties and forties are similar to audiobooks because the speaker and listener are linked only through the mediation of technology. While she is correct as to the similarities of form, the content of audiobooks is frequently quite different. Kozloff admits that many radio dramas were written specifically for broadcast and others were modified to conform to a style more informed by plays than novels (84). I would suggest that it is no fairer to compare audiobooks to radio drama than it is to compare novels to plays or screen adaptations. Kozloff’s ultimate argument, that modern audiobooks owe much of their existence to movies and television, seems to have influenced her understanding of radio drama as a direct antecedent of the talking book. While it is certainly true that some audiobooks are produced with multiple performers, sound effects, and musical scoring, these dramatized versions are much more akin to a screen adaptation of a book than an audiobook. On the other hand, talking books have been, from their earliest beginnings, much more closely tied to the public readings of authors like Twain and Dickens.
Audiobooks as we know them today began with the invention of the phonograph. One of the first applications Edison conceived for his phonograph was the recording of books to be, as Edison noted,

> used in the asylums of the blind, hospitals, the sick-chamber, or even with great profit and amusement by the lady or gentleman whose eyes and hands may be otherwise employed; or, again, because of the greater enjoyment to be had from a book when read by an elocutionist than when read by the average reader. (533)

It would be some time, however, before technology made this vision practicable. The cylinders Edison first devised to record and reproduce sound could only hold a few minutes’ worth of voice recording. According to Matthew Rubery, Twain tried to record an audio version of his book *The American Claimant* in 1891 but gave up after filling four dozen cylinders (5). Though Twain was ultimately unimpressed with the potential of the phonograph for recording books, Tennyson found it delightful and apparently recorded many of his works to play for guests (Picker 111). In 1952, Marianne Mantell and Barbara Holdridge founded Caedmon Records, which recorded authors like Dylan Thomas, W.B. Yeats, Robert Frost, and Katherine Anne Porter on vinyl records (Kozloff 85).

Despite these early attempts, however, the true potential of the audiobook would not be realized until the invention of the cassette tape, which provided enough storage capacity to make complete audiobooks feasible. Since then, CDs and MP3s have only expanded the market. According to the Audio Publishers Association (APA), “the audiobook industry has been growing steadily for more than a decade” (*Audio Industry Holds Ground in 2008*). The industry was estimated to have earned close to one billion dollars in sales in 2009 (Audio Publishers Association, *Audio*). At the same time, the increase in commute times in the modern era has made the demand for talking books much greater, for as Robin Whitten has it, “The audiobook industry was born in traffic” (7). Philips states:

> The car industry clearly sees the audio book as an incentive for drivers: in 2006 BMW car manufacturers hooked up with the publisher Random House to produce a series of new audio books which could be downloaded for free by BMW customers. (297)

Now, of course, audiobooks are mostly purchased on CD and increasingly downloaded directly to computers and iPods. Most people still listen in the car, but many also listen at home, while exercising, or even at work (Whitten 7).
The content of audiobooks is as varied, though not as extensive, as that of printed books. Early critics of the audiobook format denigrated the prevalence of abridged versions of the classics, but the ever-growing majority (85%) of audiobooks sold today are unabridged (Audio Publishers Association, Audio). The audiobook market was once dominated by non-fiction works in the self-help, financial advice, or spirituality categories. Increasingly, however, the demand is for works of fiction, including classic works of literature. According to another APA report, the top five genres preferred by audiobook consumers were mystery/thriller/suspense, general fiction, science fiction/fantasy, biography/memoir, and classic fiction (More Americans Are All Ears to Audiobooks). The narrative mode of fiction and biography is uniquely suited to an oral presentation, so this trend comes as no surprise. What is surprising is the lack of scholarly engagement in a medium that sits so uniquely at the intersection between orality and literacy.

With the ever-increasing ease of use and popularity of the audiobook, therefore, it is worthwhile to ask what effect this new way of doing literature will have on the book as we know it. As scholars like Marshall McLuhan and his former student Walter Ong have noted, a change in the format or medium of communication necessitates a change in the way we conceptualize and interpret that information: Unreflective reliance on models had generated the term ‘media’ to designate new technological ways of managing the word, such as writing, print, and the electronic devices. The term is useful and I use it regularly here. But it can be misleading, encouraging us to think of writing, print, and electronic devices simply as ways of ‘moving information’ over some sort of space intermediate between one person and another. In fact, each of the so-called ‘media’ does far more than this: it makes possible thought processes inconceivable before (Gronbeck et al.).

If Ong is right, then, we should expect to find some changes in the ways literature is produced and consumed as a result of the altered format of the audiobook. Like public reading, audiobooks contain elements that are purely literary and based on the written word. The content of our modern audiobooks is dictated by its print sources and so tends to take on the qualities of written literature. It is, for instance, analytic rather than aggregative, so that where an oral work would repeat descriptions as a mnemonic device, the written work avoids this as cliché. Audiobooks avoid redundancy for much the same reason. Where oral literature focuses on the community and frequently frames knowledge in terms of the objective world, audiobooks are based on print works that are abstract and can deal with the interior world of the individual. Audiobooks, like print books, also foreground the discovery of new knowledge over the retention of the old. Syntactically, audiobooks use the language of their print sources, which tends to be subordinative rather than additive. Despite all these affinities with print culture, however, the content of audiobooks does still retain some elements of orality.
Obviously, novels, especially more recent works, were not written to be read aloud. Nonetheless, all literature has its roots in a language that was spoken before it was written (Ong 8), and audiobooks would seem uniquely suited to emphasize this fact. Many authors of print works have been acutely aware of the fact that language is fundamentally oral. Charles Dickens, for example, earned fame and money by performing almost five hundred public readings of his work, and Mark Twain was renowned for his oral storytelling (Kozloff 84). More recently, James Joyce wrote *Finnegans Wake* specifically with an ear towards the sound of the words. As Marshall McLuhan writes, “The language of Joyce only comes alive when read aloud, creating a synesthesia or interplay of the senses” (83). He goes on to note that the prose of Gertrude Stein and the poetry of Cummings, Pound, and Eliot are all designed to shake the reader out of a passive visual process and move him towards “participant, oral action” (83). As Rubery states:

> Spoken narratives restore the rhythm and cadence of prose in ways reminiscent of early storytelling reliant on verse as a mnemonic device, even if these performances are based on a tradition of written literature that incorporates increasing levels of difficulty in terms of sequence, syntax, and wordplay comprehensible only to the reader of the printed page. (12)

So the line between oral performance and written literature meant to be read silently and privately is not as sharp as it may seem to be, and audiobooks are able to highlight the oral elements of prose that are too easily overlooked by the silent reader.

Beyond the content of audiobooks, however, the format itself recaptures some of the qualities of oral literature. Audiobooks do, for instance, have the same quality of evanescence. In a real sense, they exist only as the words are transmitted through our speakers, in the same way that an oral tale only exists as it is being spoken. Unlike the printed page, the words flowing from a recording cannot be frozen and examined at the reader’s leisure. In this way, audiobooks can be seen to reverse the process that writing began, reducing “dynamic sound to quiescent space, the separation of the world from the living present, where alone spoken words can exist” (Ong 81), thus moving the listener back towards a more oral experience of literature. Granted, audiobooks are still controlled by the audience to the extent that the listener can stop and start the playback at will. Still, to experience the story at all, the audiobook reader is required to submit to the present moment and the pace dictated by the narrator.

Audiobooks also foreground the importance of the human voice to literature in the same way that oral literature does, which has the effect of emphasizing a
sense of community even when one is alone. George Guidall has noted the way his narrations have seemed to connect him with his listeners: “I’m creating accidental intimacy.... The people listening feel so close to me’” (Ball). Though mediated through a mechanical or electronic device, a recorded narrative still reproduces a human voice in a way that is less artificial than the transposition of language to print on a page. As Ong states, “Because...the spoken word proceeds from the human interior and manifests human beings to one another as conscious interiors, as persons, the spoken word forms human beings into close-knit groups...Writing and print isolate” (73). Likewise, Kozloff writes:

Audio books are predicted [sic] upon direct address. We are not overhearing or eavesdropping; the narrating voice is explicitly addressing the listener. In fact, ‘envoicing’ the narrator creates a sense of connection stronger than reading impersonal printed pages: the communicative paradigm – storyteller to listener – that underlies printed texts has again become flesh. (92)

Despite the fact the listener may be isolated in a car, at least the potential remains for a simultaneous hearing of the audiobook and for a human connection that never exists for a written text. Audiobooks can restore a sense of community to readers and perhaps challenge the notion that reading is only properly done privately and in silence.

The experience of an audiobook may contribute to a sense of community that is stronger than that created by the printed page; however, it must be said that it cannot establish the communal relationship between the narrator and the listener in the same way that oral storytelling or public reading would. In this way, technology does serve to stand between and isolate the speaker and the hearer. While reading or sharing a book with a present audience, the storyteller will undoubtedly be aware of the audience response in their gasps, mutterings, yawns, etc. However, an audiobook narrator is more or less isolated in a booth and thus from any audience with which to interact. At best, the director or producer of an audiobook narration stands in as a surrogate audience and offers reactions and notes that may help the narrator to “respond” to potential audience reactions.

On the other hand, the narrator of an audiobook also consciously provides an interpretation of the text she is reading, so there is an element of performance that a talking book has in common with both public readings and oral literature. Gerry O’Brien, an audiobook narrator, says of his work, “‘There has to be a performance element. You have to create empathy for the characters’” (Barter). Coleman suggests that the narrator or “mediating agent between the author
and the audience could add many elements of performance and interpretation” (30). In a printed work, by contrast, the individual reader provides her own interpretation. The effect of performance for authors and composers alike has the effect of complicating or obscuring the role of the author. For example, Guidall, insists, “I am the author when I’m [narrating a book]. I’m a literary hermit crab finding a home in someone else’s imagined truth” (Ball). Hyperbole aside, the fact that an audiobook narrator like Guidall has a fan base suggests that his interpretations and performances have attracted a following rather than authors of the books he reads. The performance, then, may overshadow the text and confer a kind of authority to the performer rather than the original writer.

Audiobooks restore or foreground orality in a number of ways, making them both a part of a literate world and of an older oral tradition. It is this mixed quality of audiobooks and the presence of orality that concerns many who see in audiobooks a threat to traditional literacy and the primacy of the printed word. There are several points on which most audiobook detractors take issue. First, they suggest that listening to audiobooks is an easier, more passive experience, which has less value than the more active engagement of the silent reader. In other words, the more active the role of the reader, the more benefit the reader will get from the process of reading. While this line of thinking has merit, it need not always be the case. Activity does not always equal productivity, and the few studies on audiobook “reading” that have been done suggest that the question of which medium is better for comprehension is far from settled (Irwin 361).

In addition, I would suggest that we are capable of listening every bit as actively as we read. Perhaps our ability to effectively listen and follow a narrative for extended periods of time has simply not been developed in our predominately text-based world. We may be capable of developing this skill, but it may require us to teach it from a young age as we do now with silent reading. However, for the sake of argument, let us assume that listening to an audiobook is necessarily a more passive activity than silent reading.

There may be some benefits to adopting this posture towards literature that can be rediscovered. Many consumers of audiobooks enjoy them because of the greater freedom they afford. Consumers can perform other tasks while listening, like driving, and they are free to enjoy audiobooks simultaneously with others, something impossible in silent reading. As readers, we also are less likely to force an interpretation on a text or manipulate it if we are more passively listening. Paradoxically, though the performance element of an audiobook tends to obscure authorship, the more passive posture adopted by the listener seems much more congenial to the pure enjoyment of literature rather than
the analysis and criticism that silent reading may encourage. In other words, both an active and a passive posture towards literature can have merit, and we may be impoverishing our experience of literature to dismiss one out of hand. Some argue that the more passive audiobook listener may also abdicate interpretive control of the text. Sven Birkerts refers to the effect of listening to a spoken interpretation of a text as “an act of vocal tyranny” (147), but, he may be overstating the case. For one thing, the interpretation a narrator provides does not destroy one’s own version but may enable the listener to better clarify his own interpretation. Furthermore, a skilled narrator is often able to provide a superior interpretation to our own. A narrator gifted with accents, for instance, would do a much better job of voicing Huckleberry Finn than I am likely to do as I read silently. Irwin states:

It can be, but is not necessarily, better in some sense to perform a piece of music oneself, rather than listen to someone else’s performance of it. But more often, a better musician’s performance will be more pleasing than one’s own. Similarly, it may be better in some sense to read a book silently to oneself, but it is not clear that this is always necessarily superior to listening to an audiobook performance. (364)

Interpretation, then, may actually be aided by the interposition of an audiobook narrator between a reader (or listener) and a text. Though we must grant that a narrator’s interpretation may be falsely accepted as authoritative by a listener, this need not always be the case.

A final objection many have to audiobooks is precisely what we have been examining thus far: that the spoken book represents a move back to a more oral form of literature and away from accepted notions of literacy. Ong’s perspective is helpful here:

Orality is not an ideal, and never was. To approach it positively is not to advocate it as a permanent state for any culture. Literacy opens possibilities to the word and to human existence unimaginable without writing... Yet orality is not despicable. It can produce creations beyond the reach of literates, for example the Odyssey. Nor is orality ever completely eradicable: reading a text oralizes it. Both orality and the growth of literacy out of orality are necessary for the evolution of consciousness. (171-2)

Literacy and silent reading have been the accepted norm for centuries in the West, but it is also worthwhile to remember the oral roots of our language if only for a better appreciation of our literate culture, its positives and negatives. As Donoghue writes,
There is no need to be especially tender toward the culture of literacy: it has given us some of the greatest works of literature we know, but it has also been turned to sinister purpose. Lévi-Strauss has claimed that “the only phenomenon with which writing has always been concomitant is the creation of cities and empires, that is the integration of large numbers of individuals into a political system, and their grading into castes or classes.” The primary function of written communication, he argues, is “to facilitate slavery.” (156-57)

Donoghue goes on to qualify Lévi-Strauss, but he, like Ong asserts the value of maintaining a sense of both the oral and the printed word in our appreciation of literature:

The works of literature we most admire in the age of script and print are those which acknowledge the orality they may appear to have transcended. Dante, Chaucer, Shakespeare, Milton, Blake, Jane Austen, Emily Dickinson, Henry James, Yeats, Joyce: none of these abandoned the ways of orality. (157)

So, contrary to those who see the rise of more oral forms of literature as signaling the death of literacy, a deeper understanding and appreciation of orality will only help to reinforce the virtues and temper the vices of a literate culture.

If audiobooks can help us recapture at least something of the orality of our language, it is worth considering some of the ways in which this could affect both the production and consumption of literature in the future. For the moment audiobooks are only reproductions of works that were first released in print, but some authors already seem to be taking advantage of the new capabilities the audiobook format provides. According to Garrett Stewart, modern day spy novelist John le Carré has already begun to compose books that play with the idea of the recorded voice and seem written specifically for the audiobook format (110). There are other ways, too, that authors and publishers can participate more fully in the audio version of their books:

Novelists and publishers occasionally add something new to the format. Nick Cave narrated and co-wrote the soundtrack for his last novel, The Death of Bunny Munro. Joe Stretch, a Manchester author, collaborated with the band Hurts and the actress Anna Friel to create an interactive audio novel for Spotify. (Barter)

Facts like these suggest that authors may soon begin to compose entirely for the spoken word. Irwin suggests that when voice recognition software improves to the
Since the invention of the alphabet, new technologies have altered and influenced the way we create and consume literature. The changes they bring about are rarely initially welcomed: “The cineasts despise television at first. Newspaper journalism scorns radio until their professionalism merges. The new medium arrives as a toy or irritant, usurper or rebel” (Smith 179). Still, if history is our guide, then it is unlikely that the increasing popularity of the audiobook signals the death of the printed one any more than radio, movies, or television did. In fact, the audiobook may serve to both reinforce and expand the book market. Ong makes a strong case that new technologies must always alter the way we transmit information and the type of information we transmit, and this is no less true of audiobooks. It remains to be seen what effect audiobooks will have on our literature, but it is quite possible that they have already and will continue to recapture some of the elements of oral literature that we have lost in the centuries since Plato first fretted over the influence of the written word.

Works Cited


Suffering to Sing: Review of Christian Wiman’s *Every Riven Thing*

Joy Moore

In “The Reservoir,” the longest poem in Christian Wiman’s *Every Riven Thing*, a man bearing great grief stands before a “brown, glintless” lake and asks, “Can this still be a source?” The question seems to haunt not only the poem but also the whole collection, which confronts broken and fractured things and wonders what, by their very brokenness, they spirit. The question also seems indicative of Wiman’s wondering about God, whose nearness and hiddenness he’s experienced as both the being who may have willed his rare illness (“After the Diagnosis”) and as

...some excess
of life to which a man seems witness,
that life is not the life of men.
(“From a Window”)

These poems are unflinchingly honest about the ways suffering and illness inhabit the body and shatter the spirit, and yet there persists a joy to which Wiman also testifies. It is a quiet joy, sometimes “tunneling / up from God / knows where,” and is often shown in the humble longing of the speaker. Readers will hear Donne’s “Holy Sonnets” (especially 14) reverberate in “Small Prayer in a Hard Wind”:

As through a long-abandoned half-standing house
only someone lost could find,

which, with its paneless windows and sagging crossbeams,
itself hundred crevices in which a hundred creatures hoard and nest,

seems both ghost of the life that happened there
and living spirit of this wasted place,

wind seeks and sings every wound in the wood
that is open enough to receive it,

shatter me God into my thousand sounds ...

The poem extends its simile such that the speaker is viewed as the “half-standing house,” asking God to move through his “wasted place” as the wind that “seeks and sings every wound.”
Readers will find such brokenness everywhere in the collection: “another house another havoc had almost half-taken” (“Hammer is the Prayer”); the mother and “her way of saying her blade, the oil and onion’s hiss” (“Late Fragment”); the “shocked / cacti, tumbleweeds maddening / past in cages of themselves” (“Hermitage”); “the wind...the houses break” (“The Wind is One Force”). It’s seen when the speaker confesses himself “[i]ncurable and unbelieving / in any truth but the truth of grieving” (“From a Window”), and in the desolate “landscape for grief” conjoined with the “wet word” of depression, its “ripe vines / claustrophobic moss, endless dripping” (“A Good Landscape for Grief”). And who can miss that final image in “And I Said to My Soul, Be Loud,” where the speaker says,

I will ride this tantrum back to God

until my fixed self, my fluorescent self
my grief-nibbling, unbewildered, wall-to-wall self
withers in me like a salted slug.

Yes, here “a world is ending for one man,” yet, in these same lines, something else rises as he says:

To believe is to believe you have been torn
from the abyss, yet stand waveringly on its rim.
I come back to the world.
(“One Time”)

What turns the poet from bitter tantrum to belief? What prompts this committed reentrance into the world? The title poem, an elegant and formal piece that reveals the poet’s tendency to reimagine form, shows the mind of the poet responding to his own suffering, so much like that “brown, glintless” lake that seems no longer a source of any good. The poem turns on the repeating line, “God goes belonging to every riven thing he’s made,” its implications shifting with each stanza, suggesting in one instance that each being, “simply by being the thing it is,” reveals God. The final stanza suggests the nearness and limitation in God’s relation to man:

a part of what man knows,
apart from what man knows,

God goes belonging to every riven thing he’s made.

The seriousness of the collection exists because of the time in which it was written, “in a time when time stopped” (“Dust Devil”). That timelessness marks the divide between before and after the diagnosis, a shift “The Mole” recalls again and again by its prepositional, time-dependent repetition of after: “After love /
discovers it,” “after / the internist’s / downturned mouth,” “after / the onslaught,” “after the mountain / aster and ice,” “after / speech, touch, / even the instinct / to eat are gone.” Moments in this collection will stop your own breathing as you lean over the abyss with Wiman and imagine, along with the body’s suffering and disillusionment and lamentations, the acute awareness of time in lines like “Prevarications, extenuations, tomorrow’s tease of being” (“Darkcharms”). The poems’ silences, then, become a kind of reprieve where we step back from the edge.

What counters this suffering and leads Wiman to praise is the divine joy he feels rising in him, the love of a woman, and the love of this world. Perhaps the suffering makes the poet more capable of entering a deeper love, a deeper praise as evidenced in these lines from “One Time”:

... for an hour I have listened
to the breathing of the woman I love beyond
my ability to love. Praise to the pain
scalding us toward each other, the grief
beyond which, please God, she will live
and thrive. And praise to the light which is not yet...

In an interview, Wiman said that the crisis of diagnosis made him not simply despair, as one might expect, but feel “abraidingly alive” and “in love with the world and one woman and the life that it seemed I was going to lose.” (Backous) A love for the world figures often in the collection, and in this, he resembles many poets who speak of poetry as a way of falling in love with the world. Richard Wilbur penned “Love Calls Us to the Things of this World,” and love, Wiman does. He writes, “this our only earth” (“When the Time’s Toxins”) and not “that dirty word / eternity” (“Lord of Having”).

Such lines may confound religious readers. After all, who raised on the hope of a healed and whole afterlife would call eternity a “dirty word”? Wiman’s earlier essay, “Love Bade Me Welcome,” may ease the confusion. In it, he writes,

I was brought up with the poisonous notion that you had to renounce love of the earth in order to receive the love of God. My experience has been just the opposite: a love of the earth and existence so overflowing that it implied, or included, or even absolutely demanded, God. Love did not deliver me from the earth, but into it. (Wiman 243)

Thus, the prospect of death intensifies both the immensity of loss and the immensity of life’s abundance. His fear is of the “hell at hand... of losing... this heaven now.”
Consider the “heaven” found in the vivid and immediate “Five Houses Down,” where we encounter a junk collector who busies himself with buying and selling at the junkyard, dismantling machines and recoiling wire:

I loved his ten demented chickens
and the hell-eyed dog, the mailbox
shaped like a huge green gun.
I loved the eyesore opulence
of his five partial cars, the wonder-cluttered porch
with its oilspill plumage, tools
cauled in oil, the dark
clockwork of disassembled engines
christened Sweet Baby and benedicted Old Bitch

Wiman attends to the unkempt things and finds within them reasons to look more closely, to listen again. This junk-loving man, for instance, and his world filled with both heaven and hell. If the exuberant way Wiman delivers these images tells us anything, it is that we can find a wild heartbeat as easily in the junkyard as in any other place, certainly more than among the cherubs that have for so long defined our sense of heaven.

Wiman critiques the superficial, “the hell of having everything” (“Not Altogether Gone”), and instead welcomes us to the extremities of existence, so often a “gleaming, teeming emptiness” (“Sitting Down to Breakfast Alone”), “a sky so empty it has no end,” (“The Reservoir”) and yet one that nonetheless finds solace in love and in a divine, albeit remote, “peace ... in the hinterlands of our minds” (“Hammer Is the Prayer”).

It seems to me that Wiman’s quiet and persistent assertion—conscious and unconscious, to self and to reader—is this: the wind flutes past the wounded, half-cracked, twisted and riven things and composes a music that can only sound with that wind and that imperfect shape. And only in this world, in this moment, so that even the land-like lake can source something worth our listening. When Wendell Berry writes that “the impeded stream is the one that sings,” (97) we enter the center of what Wiman confronts, too, a life that, thrown onto the precipice of existence, exhales its suffering, its cries, and then, with deep and abiding clarity—and with the breath of another Being coursing around and through—sings:

Lord suffer me to sing
these wounds by which I am made
and marred, savor this creature
whose aloneness you ease and are.

(“Lord Is Not a Word”)

**Works Cited**


“What Parents Don’t Know About Comic Books”: Fredric Wertham and the Battle over Comic Books in the 1950s

Chris Blair

In the forties and fifties, comic books captivated children, much in the same way cartoons and video games have in the past few decades. Comic books also received significant criticism from parents, educators, and religious groups for negatively influencing children, as video games have been criticized. These were not the superhero titles most commonly associated with comic books today; instead, crime and horror titles dominated the newsstands throughout the forties and early fifties. As with video games, criticism focused on violence and the objectification of women, and similarly, arguments against the medium often lacked scientific proof that comic books truly influenced the behavior of children. In the case against comic books, one man attempted to provide such proof. In 1953, Dr. Fredric Wertham, a well-known psychiatrist who argued that crime comic books were detrimental to the children who read them, finalized his seminal work on comic books and juvenile delinquency, Seduction of the Innocent (Wertham, 1954a).

Though the book was not published until April 1954, a series of articles appearing in popular magazines prior to its publication brought the book and its author into the public light. First, in November 1953, Ladies’ Home Journal published a twelve-page article by Wertham titled “What Parents Don’t Know About Comic Books.” Filled with photos of children reading comic books, along with panels from the offending pages, the Ladies’ Home Journal article argued that crime comic books taught children in graphic detail to steal, rape, and murder (Wertham, 1953). When Seduction of the Innocent was released six months later, a condensed section of the book appeared in Reader’s Digest as an article titled “Comic Books—Blueprints for Delinquency” (Wertham, 1954b). These articles were part of a long series of writings from Wertham cautioning readers about the harmful effects of comic books on its traditionally young readers. While not Wertham’s first articulation on the dangers of comic books, “What Parents Don’t Know About Comic Books” and “Comic Books—Blueprints for Delinquency” represented a new phase in the decade-long battle to reduce the violent and sexual content in comic books that began around 1940 and continued into the mid-fifties.
Wertham is notorious among comic book fans as the lone crusader who single-handedly destroyed the comic book industry. While the idea that Wertham’s work single-handedly brought down the entire comic book industry is extreme and fails to account for all the variables, Wertham was an important figure in the crusade to regulate comic books. He essentially created a new hermeneutic for understanding the effects of outside influences upon children and their behavior, and he articulated that understanding in such a manner that everyone from parents to legislators could agree that crime comics were harmful to children. Wertham presented his arguments in his traditional style, combining descriptions of comic books pages with examples of actual juvenile crimes he experienced while working with juvenile offenders in New York City. After several pages of descriptions, examples, and illustrations, Wertham finished both articles by refuting the popular arguments made by the comic book industry and civil liberties organizations, tying comic books to the extremely unpopular communist propaganda of the previous decade.

All of his previous work culminated into one action-filled month in April 1954. In that month, Wertham published his excerpt in *Reader’s Digest*, saw his book published by Rinehart Publishing, and testified as a key witness at the hearings of the Senate Subcommittee on Juvenile Delinquency and Comic Books, which he helped coordinate (Nyberg, 1998; Beaty, 2005). The hearings and subsequent report filed by the Senate subcommittee placed pressure on the comic book industry, which responded by creating the Comics Code Authority to regulate the content of comic books and avoid the possibility of government interference. The Comics Code functionally banned all crime and horror comics, marking the return of superhero titles, and placed restrictions on the amount and type of violence, language, and sexual content in each issue. The Comics Code Authority remained in power until the early 2000s, when the major comic book publishers began to abandon the Code in favor of a more flexible ratings system, similar to the way the motion picture industry abandoned the Production Code for a ratings system in the late 1960s (Wolk, 2011).

Though *Seduction of the Innocent* sold well over the next few years, it will be argued in this essay that the hearings and the magazine articles were more influential upon the comic book industry’s decision to form the Comics Code Authority. The Senate hearings frightened the industry into regulating itself, while the various magazine articles served to sway public opinion against the comic book industry. By targeting the mothers of the children who read comic books, Wertham was able to directly address those with power over the purchasing of children’s reading material, besides the children themselves.
Background Behind Wertham’s Crime Comic Crusade

Trained as a medical doctor, then in psychiatry, Wertham’s major area of expertise was the human brain; his first book was a textbook entitled *The Brain as an Organ*. Born in Germany as Frederic I. Wertheimer, Wertham was influenced by the Frankfurt School of thought and by such scholars as Arno Mayer and Siegfried Kracauer. His background helped form his assumptions and his modes of research, and his experiences as a court-appointed psychiatrist influenced his identification of crime comic books as a potential threat to the children who read them (Nyberg, 1998).

After teaching for years at Johns Hopkins Medical School, Wertham served as director at the Phipps Clinic, where he was the Chief Resident of Psychiatry. At the Phipps Clinic, he worked alongside Dr. Adolf Meyer, who created the first standardized method of taking case histories for mental patients (Beaty, 2005). This experience would later influence Wertham’s own method of clinical case studies used during his research of juvenile delinquency. After he left the Phipps Clinic, Wertham began working with the New York Court of General Sessions, which would place him in direct contact with the children, the juvenile delinquents, who would become the centerpiece of his research. Wertham used his detailed clinical histories of his patients in his research, combined with content analyses of the comic books his patients were reading. On several occasions he would visit the home of a juvenile offender, ask the parents if he could see the child’s room, then ask if he could take with him any reading materials or other items of interest. Often he would borrow the child’s stack of comic books, with the parents’ permission, and study them later in conjunction with his work on that particular case (Nyberg, 1998).

Wertham held his first symposium on comic books, *The Psychopathology of Comic Books*, in March 1948, where he introduced his argument that crime comic book readership could be linked to juvenile delinquency (see Nyberg, 1998; Goulart, 1986). Wertham also wrote an article that established a link between crime comic books and juvenile delinquency, which was published in the *Saturday Review of Literature* in May of 1948. The article, entitled “Comics . . . Very Funny!,” was excerpted in newspapers across the nation, and a shortened version of the article appeared in the August 1948 *Reader’s Digest* (Wertham, 1948a, 1948b). While his work with juvenile delinquents and crime comic books continued, Wertham wrote very little on the topic after 1948, due in part to lack of interest of publishers who wanted to give the newly formed Association of Comic Magazine Publishers’ self-regulatory code a chance to work (Beaty, 2005). He would begin writing again in 1953, as several state legislators considered crime comic book bills, and
as public concern over juvenile delinquency grew after the apparent failure of the ACMP code. After 1954, when crime and horror comics virtually disappeared under the Comics Code Authority, Wertham turned his attention to the study of other movements, including the effects of television news on the Vietnam War and the growth of comic book fanzines in the sixties (Wertham, 1968, 1973). Ironically, Wertham found the comic fanzine to be a refreshing, positive outlet free from violence and mass manipulation (Nyberg, 1998).

**Criticisms of Wertham and *Seduction of the Innocent***

The most consistent criticisms of Fredric Wertham and his work came from the comic book industry, which derided him in editorials and caricatured him in the pages of their comic books. One of the only public critics of Wertham outside of the comic book industry was Frederic M. Thrasher, a professor of education at New York University and former researcher with the Motion Picture Research Council (Daniels, 1971; Nyberg, 1998). Thrasher wrote a criticism of Wertham’s early work, titled “The Comics and Delinquency: Cause or Scapegoat,” for the *Journal of Educational Psychology* in 1949. Thrasher (1949) compares Wertham’s arguments with those made by early movie critics, stating:

> Reduced to their simplest terms, these arguments are that since the movies and comics are enjoyed by a very large number of children, and since a large component of their movie and comics diet is made up of crime, violence, horror, and sex, the children who see the movies and read the comics are necessarily stimulated to the performance of delinquent acts. (p. 201)

Thrasher questions Wertham’s research methods, which Wertham does not explain in detail in any of his popular articles, and he criticizes Wertham for “the improper use of extraneous material” in Wertham’s writings (p. 202). Thrasher suggests that Wertham’s research would be accepted if he used the social scientific methodology utilized in the Payne Fund studies, the research on the effects of motion pictures on children Thrasher co-wrote in the 1930s, though they were later criticized for many of the same reasons. Thrasher concludes by writing, “[I]t may be said that no acceptable evidence has been produced by Wertham or anyone else for the conclusion that the reading of comic magazines has, or has not a significant relation to delinquent behavior” (p. 205).

The major criticism directed at Wertham’s writings is that he singled out comic books as the sole cause of juvenile delinquency, presenting an unbalanced and unscientific point of view. Shearon Lowery and Melvin DeFleur (1983), in their chapter on Wertham in *Milestones in Mass Communication Research*, criticize
Wertham for utilizing a version of what they refer to as the “old magic bullet theory,” where media effects on audiences are direct and instant (p. 262). The editors of Marvel Comics reasoned in an editorial that a great number of children read comic books with no negative effects whatsoever, though they provided no statistical evidence to support their contention (“Hi Friends,” 1949). Though crime comic books were the focus of his study and his writings, Wertham did not assert that comic books were the sole influence on children. Comic book historian Nicky Wright (2000) noted:

Although Wertham hammered comic books unmercifully (and perhaps somewhat unfairly) in Seduction, if you read carefully you will see that he regarded them as only part of the problem. Other factors such as poverty, broken homes, street violence, all played a part. Comics were, to these youngsters, the icing on the cake and they left an impressionable taste. (p. 30)

The majority of Wertham’s writings, however, focused specifically on comic books and their direct link to delinquent behavior. His articles targeted comic books, scarcely mentioning other possible influences. Even Thrasher acknowledges, with certain qualifications, that Wertham does not argue that comic books are the only factor contributing to juvenile delinquency, writing:

Wertham’s reasoning is a bit more complicated and pretentious. His [reasoning] disclaims the belief that delinquency can have a single cause and claims to adhere to the concept of multiple and complex causation of delinquent behavior. But in effect his arguments do attribute a large portion of juvenile offenses to the comics. More pointedly he maintains that the comics in a complex maze of other factors are frequently the precipitating cause of delinquency. (1949, p. 201)

Wertham did not focus on the entire comic book industry though. He was careful to criticize only crime comic books, making a distinction between them and other non-offensive comics. Wertham later clarified, “I never spoke of comic books. I only spoke of crime comic books. That is important because there are of course good comic books, but a crime is a crime” (Goulart, 1986, p. 270). Crime comic books, and the later boom of horror comic books, became easy to identify. Many publishers began to distance themselves from such works. Jeffrey Brown (1997) summarized that Wertham’s writings featured inconsistent theory, lack of conclusive evidence, and sensational illustrations taken out of context, but he also notes that “in the early 1950s, the public was not concerned with whether a study was methodologically sound. Wertham played on the fears of parents everywhere and the backlash against comics was devastating” (p. 20).
Wertham had singled out crime comic books, which became linked to juvenile delinquency, whether that was completely accurate or not.

Wertham has also been criticized for not utilizing social scientific methods in collecting the data used in his writings. However, in his work Wertham was not only arguing against crime comic books but also for a new form of analyzing and understanding the effects of media on society. Thrasher (1949) contended that Wertham’s research would be best described as “forensic rather than scientific” and criticized him for not adhering to the social scientific methods generally accepted by other academics and researchers (p. 202). Admitting that Wertham’s methods are best described as qualitative content analysis, Lowery and DeFleur (1983) argued that he should have supported his positions with scientifically-gathered data and a systematic inventory of comic book content, stating, “Without such an inventory, the conjectures are biased, unreliable, and useless” (p. 262).

From the beginning of his career, Wertham resisted the notion that the only valid research was scientific research. Amy Kiste Nyberg (1998) observed, “Wertham was not interested in a social science approach, with its emphasis on individual effects, in his study of comics. Rather, his aim was to understand the ways in which mass media shaped society” (p. 86). Nyberg continued, “[Wertham] maintained that psychiatry’s goal should be to understand social influences affecting individual behavior” (p. 86). Wertham felt that his clinical case studies of children and investigation of their media habits, often in the form of anecdotal testimony, were the most effective way to understand the effects of media on children (see Wertham, 1962). His background and experiences begin to explain the fore-understanding he brought to his hermeneutic of media effects. Wertham utilized both a traditional, text-oriented hermeneutic through his interaction with the comic book texts, and he utilized a more philosophical hermeneutic through his interactions and experiences with the children he sought to understand more fully. His writings, however, rarely addressed his methodology or his views on social scientific research. Wertham wrote primarily in popular magazines, not academic journals, and his writings addressed parents and other adults unaware of the content in, or impact of, comic books. The choice to release his findings in a non-academic manner to the general public contributed greatly to the persuasiveness of his arguments, as well as to the controversy surrounding them.

**Analysis of the Wertham Articles**

Rinehart Publishing promoted *Seduction of the Innocent* as the “most shocking book of the year” (“Seduction of the Innocent,” 1954, pp. 1225–1226). The book, along with the Senate investigation of comic books and juvenile delinquency, has
been credited—or blamed—for the end of crime comic books and the creation of the Comics Code Authority and its comic code (Nyberg, 1998). The 397-page book has been the source of much controversy and criticism, and it initially received mixed reviews.

Several critics seemed to agree with Wertham’s major premise, yet they could not excuse the extreme tone and repetitive nature of the book. C. J. Rolo (1954), writing for the Atlantic, described the book as “clumsily written and highly repetitious” (p. 82). Louis Barron (1954) in the Library Journal said, “Although the author feels so strongly about this subject that he seems at times to overstate the case, the shocking facts are there and cannot be laughed away by comic book publishers or their hired psychological experts” (p. 622). Some of the reviewers, however, praised Wertham’s books for the aspects of his work that would later be disparaged. C. W. Mills (1954) at the New York Times said, “Dr. Wertham’s cases, his careful observations and his sober reflections about the American child in a world of comic violence and unfunny filth testify to a most commendable use of the professional mind in the service of the public” (p. 20). Yet the degree to which the book would influence the public was unknown at the time. J. H. Jackson (1954), writing for the San Francisco Chronicle, noted, “It is one of the most shocking books in recent years. It can turn out to be one of the most influential if American parents would read it” (p. 19).

Seduction of the Innocent sold well, and the publicity surrounding it helped those fighting for the regulation of crime comic books, but its direct influence on the comic book industry is as unclear as the direct influence of comic books on juvenile delinquency. While Seduction of the Innocent was relatively successful, it had only a fraction of the reach of the Ladies’ Home Journal and the Reader’s Digest. In 1953, when “What Parents Don’t Know About Comic Books” was published, Ladies’ Home Journal was the second most read magazine in the United States with an average monthly circulation close to five million copies (Peterson, 1964; Wood, 1956). Only Life magazine sold more copies. In addition, Reader’s Digest, not considered a magazine, reached over ten million readers a month, boasting in 1950 that it reached 27% of all American adults (Wood, 1956; Peterson, 1964).

Wertham’s articles likely reached several million more readers than his book ever could. The articles also had a greater potential to reach concerned parents, civic leaders, and legislators before the book. Seduction of the Innocent was released on April 22, 1954; the day after, the Senate hearings began. The book was intended to be a part of the Reader’s Digest Book of the Month Club in June as an alternate, but it was pulled at the last minute, apparently due to its controversy (Nyberg, 1998; Savage, 1990; Wertham, 1954b). The articles published in Ladies’ Home Journal
and *Reader's Digest*, as well as other articles written by journalists covering the Senate investigation, were as influential in the shaping of public opinion towards comic books as *Seduction of the Innocent* (see “Are comics horrible?,” 1954; “Hearings Set,” 1954; “Horror comics,” 1954; “Horror on the newsstands,” 1954). In the following section, the texts from both the *Ladies’ Home Journal* article and the condensed section in *Reader’s Digest* will be examined. This examination of Wertham’s articles will first summarize the articles and identify their goals, as explained by Wertham. Second, an investigation of the text will reveal the assumptions Wertham made about crime comic books and their impact on children. Finally, an analysis of the text will identify the persuasive methods Wertham utilized to present his arguments against crime comic books.

**Summary of Articles**

The first page of “What Parents Don’t Know About Comic Books” explains the focus and target audience of the article, stating, “The parent who shrugs and says his children read only ‘good’ comics usually hasn’t read these books himself. Here is the startling truth about the 90,000,000 comic books America’s children read each month” (Wertham, 1953, p. 50). In the text of the article, Wertham explains, “Many adults think that they know all about crime-comic books . . . [but] most adults really have no idea of the details and content of the majority of crime-comic books” (p. 51). He proceeds to explain what crime comic books are, what is contained in them, and what effect they have on children. In “Blueprints for Delinquency” Wertham sets forth his thesis, stating, “Years of working with maladjusted kids have convinced me that the unwholesome stimulation of such [crime] comic books contributes markedly to delinquency” (1954b, p. 25). He sets forth a similar structured argument as found in the *Ladies’ Home Journal* article; in fact, the two articles are almost identical in structure. The key differences between the two articles are length and the resulting detail of examples.

Both articles begin with a story of a child caught committing a crime and the connection to comic books. The *Ladies’ Home Journal* article tells of a young boy who had been caught burglarizing a store. Two older boys would send him in to steal, and they would reward him with “a steady supply of candy and crime comic books” (Wertham, 1953, p. 51). On the other hand, the beginning story in “Blueprints for Delinquency” is more serious. A boy had been found guilty of shooting and killing an older man at a baseball game. Though others had blamed the aunt who was raising him, Wertham noted that he was a “rabid comic-book reader” and that the comics Wertham acquired from the aunt showed a steady diet of sex, violence, and gunplay (Wertham, 1954b, p. 24). Both articles discuss the immense popularity of comic books and the huge increase in the number of crime comic books in the past.
years, and they also draw a loose connection between the growth of crime comic books and the disturbing increase in juvenile crimes. Both articles then provide examples of the content of crime comic books, through detailed descriptions of storylines and examples of crime comic promotions. Wertham (1954b) ends both “What Parents Don’t Know About Comic Books” and “Blueprints for Delinquency” by stating, “I believe that aroused parents will eventually realize that comic books are not a necessary evil. I am convinced that in some way the democratic process will assert itself and crime comic books will go” (p. 29).

While Wertham’s thesis in the Ladies’ Home Journal article is clearly presented, much of his message is not contained in the text. Alongside the discussion on crime comic books, however, is a compelling component of Wertham’s argument against comics—the pictures. Wertham places excerpts depicting violent and sadistic acts from various titles with explanatory captions beneath them. The first panel shows a man holding a woman, whose breasts are protruding—to use Wertham’s terminology—while another man comes at her with a knife in his hand. As the woman is yelling, “HELP! HELP!,” one man says, “This is a shame, but orders is orders!” and the other yells, “Hold her still, will ya?” Underneath the panel, a caption states, “Juvenile delinquency of our time cannot be understood unless you know what has been put into the minds of children” (Wertham, 1953, p. 50).

Wertham utilized this method to describe what he sees wrong with the comic books of his era. In “What Parents Don’t Know About Comic Books,” eleven comic panels accompany the body of the article, along with a couple of staged photographs of “clean cut” children reading crime comic books. “Comic Books—Blueprints for Delinquency,” however, did not feature any panels from actual comic books, relying completely on Wertham’s detailed descriptions. The only illustration appearing in the article is a generic drawing of a boy lying on the floor reading comic books (Wertham, 1954b).

Assumptions

Wertham operated under some basic assumptions, many of which have been rejected by modern media effects researchers. First, Wertham assumed that most children were not yet mentally sophisticated enough to resist the negative influences that comic books presented. Wertham utilized this concept throughout his work (see Nyberg, 1998). As a result, Wertham felt that his findings would be best presented to parents rather than children.

Second, according to Nyberg (1998), Wertham believed that children “did not remember entire stories, but only fragments,” making the arguments by comic publishers that their stories always punished criminals in the end an “empty
reassurance” (p. 96). Wertham (1954b) derided the concept that crime comics discouraged children from pursuing a life of crime by illustrating the consequences. He quoted the legend from one such comic in “Blueprints for Delinquency,” which read, “We hope that in these pages the youth of America will learn to know crime for what it really is: a dead-end road of fools and tears” (p. 26). Wertham then noted:

Inside, a criminal terrorizes a farm family, makes advances to the farmer’s wife, beats the farmer, kidnaps their little boy as a hostage. “I’ll knock yer teeth out!!” he snarls as he beats the child. In the end the criminal evades the law by shooting himself, like a hero. The story has 97 pictures of the criminal winning and one for his violent end—a ratio of 97 parts of “crime” to one of “does not pay.” (p. 26)

Wertham argued that children were desensitized to violent behavior by avidly reading crime comic books and that the content of these books was a “veritable primer for juvenile delinquency” (p. 26).

Third, Wertham felt that most adults, especially parents, were not truly aware of what children were reading in crime comic books. This assumption provided the foundation for all of his writings, each article having the same basic premise: that adults need to be informed of the content of crime comic books and the actual crimes that children commit. Much of Wertham’s writings are a sensational collection of lurid comic book stories and horrible accounts of juvenile crime. The link between the two is made simply by their proximity to one another.

**Persuasion in the Wertham Articles**

After Wertham felt he had made sense of the relationship between comic books and children, he then proceeded to organize his arguments to persuade others. Wertham did not invent new arguments for *Seduction of the Innocent* and the other articles. Actually, Wertham had written a number of articles for academic journals and popular magazines from 1948 to 1954, and he also published a previous book, *Show of Violence* (1949). But it wasn’t until years later that his findings touched parents and impelled legislators to become involved. In this way, Wertham’s hermeneutics and his rhetoric were related. Being able to express one’s understanding is as natural a response as one’s need to understand. The rhetoric for Wertham was a means of expressing what he had discovered during his research, but his understanding was not truly complete without the expression, the sharing of his ideas and discoveries with others. Looking at Wertham’s writings within the context of Aristotle’s persuasive proofs—*ethos, logos, and pathos*—helps reveal
the persuasive features of his discourse. The criticisms of Wertham’s writings are clear and useful in identifying the weaker elements within his research, yet these criticisms do not address how such flawed research and conclusions could be so influential and well received by many. While comic book fans and media effects researchers deride his research and scoff at his conclusions, millions of parents, teachers, and other adults believed in Wertham’s message.

Much of Wertham’s popular credibility, his ethos, came from his position and his training as a medical doctor and psychiatrist. The beginning of “What Parents Don’t Know About Comic Books” noted that the article was written by Fredric Wertham, M. D., and “Comic Books—Blueprints for Delinquency” credits Wertham as a “psychiatrist and director of the Lafargue Clinic, New York City” (1954b, p. 24). Some of his credibility could be derived from his extensive years of researching the subject, but Wertham downplays this in his articles. In “What Parents Don’t Know About Comic Books,” Wertham makes no mention of the clinic or his research for several pages, and he only makes brief mention of “my investigations and those of my associates” (Wertham, 1953, p. 217). In “Comic Books—Blueprints for Delinquency,” Wertham (1954b) makes no mention of the clinic and only mentions his “years of working with maladjusted children” (p. 25). Perhaps he derived much of his ethos from his comprehensive knowledge of the contents of crime comic books and his extensive interaction with juvenile delinquents through his clinic. Each of his articles begins with outrageous, but real, stories of juvenile crimes combined with examples of crime comic stories. There seems to be no end to the number of stories of child crimes and their similarities to crime comic book plotlines.

The drama and the pathos of the comics, when placed in a different context, became the basis of Wertham’s arguments. The comic book stories and images Wertham was criticizing contained the drama and the thrill that kept children reading. The goal of the comic book was to keep children buying the comic, while Wertham’s goal was to make parents aware of what their children were reading. Both the children and the parents were attracted to the salacious drama provided in the pages of the comic books, and neither seemed to be able to stop reading.

To begin “What Parents Don’t Know About Comic Books” Wertham (1953) told a story about a small child committing a crime:

One Sunday night a patrolman in New Jersey reported to police headquarters that he had seen some suspicious movement in a meat market. Two squad cars sped to the scene and came to a screeching stop. Six policemen rushed out of the cars with drawn guns and surrounded the store. Two of them
entered it, ready for battle. Their quarry turned out to be a handsome, blond, curlyheaded little boy of six . . . The little boy, too young even for a juvenile delinquency charge, had started his career as a burglar at five, rewarded by his companions with a steady supply of candy and crime-comic books. (p. 51)

Wertham followed this story with this quote from a comic book: “Every boy has his idol! He may be a star athlete, a two-fisted Hollywood Western actor or a famous general. But some boys veer away from such heroes, and admire the bad men” (p. 51). He continued this combination of real life horror stories and comic book fantasies. Wertham’s writing even mirrors the dramatic style used within comic book captions with active verbs and colorful language in the first story, “Two squad cars sped to the scene and came to a screeching stop. Six policemen rushed out of the cars with drawn guns and surrounded the store” (p. 51). Intertwined within his narrative, Wertham added his commentary in such a way that he retains his authority and expertise. Note how he managed to work back and forth from facts and commentary in the following paragraph:

The keynote of crime-comic books is violence and sadism. This is featured in the illustrations and in the text. In one typical crime comic with a catchy crime title one story alone has ten pictures of girls getting smacked in the face, beaten with a whip, strangled, choked by hand, choked with a scarf. In addition, two men are killed and one man is crippled. (pp. 51-52)

The article is as fast-paced and as dramatic, and contains almost as must sex and violence, as the comic books he criticized.

The logos, or rational arguments, made in Wertham’s articles focused on the sheer volume of criminal activity portrayed in crime comic books and their seeming relationship with juvenile delinquency. Much of the logos in his articles, like his pathos, came from the crime comic books he criticized. The way Wertham documented the slightest details contained within every single panel foreshadows the semiotic critique of future media critics. In “What Parents Don’t Know About Comic Books,” Wertham (1953) shared one detailed description of a “brutal near-rape” scene in a series of comic panels:

This is what the twelve out of thirty-seven pictures show:
1. The girl walking along, with a dark figure wearing a cap, his arm stretched out toward her, lurking behind.
2. The girl falling over, her breast prominent, her skirt thrown up to reveal black net panties, the “attacker” a black, shadowed figure leaning over her.
3. He “drags her into the gloom,” holding his hand over her mouth and tearing off her coat.
4. He has her on the ground behind some bushes, but people approach.
5. The girl, murdered, and presumably raped, is shown on the ground with her clothes disordered and torn; the milkman who finds her exclaiming, “Jeepers! A dame—and she’s been croaked!”
6. Girl standing by water front “sees a hand ominously rising.”
7. Girl being choked from behind. Screams: “AI—EEEK!!”
8. “The Strangler” seizing her, with one hand over her mouth.
9. He throws her to the ground.
10. He locks her in a warehouse, saying, “I’ll kill you just like I did the others—then I’ll crawl down the trap door and get away under the dock—HA! HA!”
11. He faces her threateningly: “HA! HA! HO! HO! She’s going to pretty her face up before I kill her—HAW! HAW!”
12. He chokes her. Dialogue:
   He: “Now I’ll get my hands on your white neck!”
   She: “Stay away from me, you beast!” (p. 52)

This sequence is representative of the type of detailed descriptions that characterize Wertham’s writings. Commonly, he would describe a crime committed by a child, and then relate the exact same crime as it was described in a comic book. This move has garnered the most criticism, accusing Wertham of claiming that comic books are the sole reason for juvenile crime, although he specifically tempered his approach. Wertham explains, “The role of comic books in delinquency is not the whole nor by any means the worst harm they do to children. It is just one part of it” (1954a, p. 217). His understanding of the effects of comic books on children was not that all comic books cause all or most children to become juvenile delinquents. Instead, Wertham argued that enough examples exist of children acting out crimes seen in comic books to cause parents to keep a close eye on what their children read and to cause legislators to investigate crime comic books and the industry that publishes them.

Wertham’s (1954a) research never claimed to be predictive, but rather was reflective or reactive, looking back at the crime comic books that been published and trying to make sense of the relationship between them and juvenile crime. He proposed restricting crime comic books to those over the age of 15, not because he believed all children would become juvenile delinquents, but out of an abundance of caution. Wertham felt he began to truly understand what effects comic books were having on children, and he did not like the glimpse he was seeing. Wertham directly targeted parents as his primary audience, assuming they were not fully
aware of the content of the media their children were watching or reading. Wertham asserted that most parents had not read a single crime comic book, and that they assumed all comic books were patriotic or featured funny animals. Parents were surprised, and sometimes shocked, to discover what their children were being exposed to without their knowledge. That was the most powerful element of his argument.

**Use of Language in Wertham’s Articles**

In addition to his lengthy, detailed descriptions of comic book stories, Wertham (1953) managed to coin many of the terms that would be used in the debate over comic books and juvenile delinquency. Many of the terms Wertham used were drawn from his conversations with children. One of the most outrageous and memorable terms used by Wertham was the word “headlights” when referring to a picture of a woman with “protruding breasts.” Wertham explained this term for the first time in the *Ladies’ Home Journal* article, “That one was . . . one of the most sexy, specializing in highly accentuated and protruding sweater breasts in practically every illustration. Adolescent boys call these ‘headlights comics’” (p. 218). This term has lasted for decades and is still used in comic book guides to describe covers with “protruding breasts” depicted.

One of the most powerful inventive moves, however, was Wertham’s (1953) categorizing of certain comic books as crime comic books. The use of this term to describe comic books with violent content was a natural extension of the comic book titles, *CRIME Must Pay the Penalty* (Ace Comics), *CRIME Can’t Win* (Marvel Comics), *The Perfect CRIME* (Cross Publications), and *CRIME Does Not Pay* (Lev Gleason), but Wertham equivocated “crime comic books” with “violence and sadism” (p. 51). Critics have accused Wertham of attacking comic books that only comprised a small portion of those published monthly in the fifties, but to truly measure what portion of comics were “crime-comics,” one must understand Wertham’s definition. When referring to crime comics, Wertham spoke of any comic book that portrayed crimes committed in detail. Under this definition he included what comic publishers would classify as westerns, horror, and superhero comics. “In 1948-49 [crime comics] increased to one third of the total. To these must be added the many horror, jungle, interplanetary, Superman and Superwoman types which are nothing but crime comics in a different setting” (p. 218). Wertham (1954b) often referred to other comic genres as what he saw them to be: westerns (crime comics in the Old West), sci-fi comics (crime comics in space), and jungle comics (crime comics in the jungle). In “Blueprint for Delinquency” he explained, “Jungle, horror and interplanetary comics specialized in torture, bloodshed and lust in an exotic setting” (p. 26). He even went so far as to describe “romance”
comics as crime comics for girls, using as examples romance comics explaining in detail how to steal or shoplift from department stores (Wertham, 1953).

The one stretch in classifying comics that has never truly caught on was referring to superhero comics as crime comics with superheroes replacing police. In “Blueprint for Delinquency” Wertham (1954b) wrote, “The superman type of comic book also needs an endless stream of criminal, ‘foreign looking’ people, to justify the constant use of force and superforce” (p. 26). The problem with this analogy is that the “main” characters of the crime comics are the “bad guys,” whereas the main characters in superhero comics are the superheroes. In crime comics, the criminals might even beat up or shoot a policeman, only to be caught and punished in the end. However, in the superhero comic, the criminal never manages to beat or shoot the superhero, and if he does, the bullets bounce off. Few believed in the superhero-comic-as-crime-comic concept, as is evident in the fact that after the demise of crime comics in the mid-fifties we experienced a new revival in superhero comics that began the Silver Age of comic books.

Conclusions

Although Wertham’s work was supported by parents and some legislators, it was not well received by scholars and academicians. The criticism is much the same: that the author sensationalized the information by overemphasizing the negative influences and downplaying other contributing factors. Academics have criticized Wertham for presenting shoddy research to a popular audience, and he has been demonized by many in the comic book community for almost single-handedly destroying the industry when it was at a historical high point (see Nyberg, 1998; Savage, 1990; Benton, 1993). The academic criticisms are mostly accurate; Wertham did not utilize accepted social scientific methods, and the external validity of his claims does not withstand close scrutiny. He did not publicly discuss his methods or present any systematic inventory of the content of the comic books he studied but flatly rejected the premise that statistical social science results were necessary for valid scientific research (see Lowery & DeFleur, 1983). In contrast to the majority of media effects researchers, Wertham discounted the use of questionnaires, statistical models, and control groups when studying child behavior. In an article in the American Journal of Psychiatry, Wertham criticized the works of such early media effects researchers as Himmelweit, Schramm, and Klapper (1962). Wertham argued that the error in the findings of these works and others are in the methods they use. Wertham (1962) stated:

The error of these and similar publications is their method. That is why they arrive at negative conclusions about mass media effects. The term statistical
Wertham instead contends that a clinical method, used in psychiatry and in his examination of crime comic books and juvenile behavior, is needed for any true understanding of media effects. Wertham explained:

The clinical method includes a study of the whole child, a diagnostic evaluation of his personality and emotional life, his thinking, his background, his real satisfactions and dissatisfactions, the application of psychodiagnostic tests and—most important—a follow-up of his further development and response to guidance and therapy. (p. 309)

This tension between Wertham and the social scientists researching media effects is obvious in both the writings of Wertham and of others criticizing his research. Klapper (1960) described Wertham’s research as “alarmistic” and stated, “It is undoubtedy true, as the critics claim, that some easily available comic books do or did deal with ‘murder, mayhem, robbery, . . .carnage, . . .and sadism,’ but the present author has yet to be convinced that they ‘offer short courses’ in these subjects” (p. 137). DeFleur (1971) described Wertham’s *Seduction of the Innocent* as a “bitter denunciation of comic books” (p. 65). The difference between the media effects researchers and Wertham, however, is not that Wertham did not systematically employ the accepted social scientific research methods, but that Wertham systematically rejected these methods as effective in assessing the effects of media on children.

The common characterization of Wertham by fans of comic books is that he was a lone crusader who, with *Seduction of the Innocent*, brought down the entire comic book industry, and that the comic book as an art form has never completely recovered from his crusade. While Wertham is clearly the movement’s most vigorous and most persuasive spokesperson, he was not alone in the movement to regulate crime comics, and *Seduction of the Innocent* did not play as large a role as most contend. The crusade to censor comic books preceded Wertham, with the earliest national criticisms of comic books coming from author and columnist Sterling North as early as 1940. Also, after the end of World War II, the movement had found its early voices in the writings of Marya Mannes in the *New Republic* and John Mason Brown, writing for the *Saturday Review of Literature*. The issue of comics’ influence on children had received national attention in 1947 when the city of Indianapolis launched an anti-comic book campaign, and the same year
saw the Catholic National Office for Decent Literature begin to rate comic books as either “acceptable,” “borderline,” or “objectionable” (Benton, 1993, p. 73). In 1948, as Wertham first gained national attention, the Cincinnati Committee for the Evaluation of Comics began publishing their annual comic book ratings in the widely read *Parents* magazine (Murrell, 1950, 1951, 1952, 1953). Wertham, however, quickly became the primary voice in the movement against crime comics.

While Wertham played a key role in the eventual downfall of crime and horror comic books, his *Seduction of the Innocent* was not as influential as most comic histories contend. Though it was the culmination of Wertham’s decade of research on the issue and can be considered the most comprehensive work in the field, the book was simply released too late to have been singly responsible for the creation of the Comics Code Authority and the end of crime and horror comics. A number of factors contributed to the formation of the Comics Code: the increase in juvenile delinquency, the comic industry’s shift from patriotic superhero comics to crime and later horror material, and the apparent failure of the ACMP’s self-regulatory effort, as well as the articles and books written on the subject. In addition, these factors contributed to the comic book controversy gaining the attention of the Senate subcommittee investigating the causes of juvenile delinquency. The Senate hearings and the impending threat of federal regulation were the most influential factor leading to the creation of the Comics Code, not the publication of *Seduction of the Innocent*. The book’s publication and popularity only served to solidify the resolve of the legislators and those concerned about the effects of crime comics on children.

Though Wertham was a vigorous crusader for the regulation of crime comic books for children under the age of 15, he was reluctant to be associated with censorship. In fact, Wertham had testified previously in opposition to other forms of censorship; he felt that restricting access to children was a different matter completely (Benton, 1993). Additionally, Wertham opposed the self-regulatory efforts of the comic book industry, which eventually led to many of the structural and financial problems the publishers faced in the second half of the fifties (Nyberg, 1998). Wertham felt that parents needed to know about what he was seeing but was unsure as to the best way to proceed. In “What Parents Don’t Know About Comic Books” Wertham (1953) shares his own frustrations in figuring a way to share what he thinks he has discovered, but is not sure anyone will “buy into it”:

One afternoon, after analyzing the content of the latest batch of comic books, I was riding on the subway. Across from me was a nice-looking little boy, totally immersed in one of the bloody thrillers I had just gone over.
I caught myself in a reverie. In my fantasy I was addressing a huge audience of parents, doctors, legislators and officials. This is what I was saying:

“Set the children free! Give them a chance! Let them develop according to what is best in them. Don’t inculcate them with your ugly passions when they have hardly learned to read. Don’t teach them all the violence, the shrewdness, the hardness of your own life. Don’t spoil the spontaneity of their dreams. Don’t lead them halfway to delinquency and when they get there clap them into your reformatories for what is now euphemistically called group living.

“They want to play games of adventure and fun, not your games with weapons and wars and killing. They want to learn how the world goes, what the people do who achieve something or discover something. They want to grow up into men and women, not supermen and wonder women. Set the children free!”

But I caught myself. Ridiculous! Who would listen to that? The flood of new and bad comic books continue to rise. There is no denying Superman his victory. (p. 219)

Wertham was wise to avoid this message, yet future movements to reduce the amount of sex and violence children witness, whether in motion pictures, television, or video games, suffer the consequences of Wertham’s strained connections and anecdotal evidence. Reformers and researchers have struggled to conclusively demonstrate the causal connections between violent entertainment and violent behavior that social science research demands and Wertham actively avoided. Research has shown a relationship between television violence and aggression, just not to the statistically significant levels needed to push for restrictive legislation (e.g., Bjorkvist & Lagerspetz, 1985; Egbufor, 1997; Eron, 1986; Rainey-Gibson, 2000; Sekella, 1997; Singer, J. L. & Singer, D. G., 1981).

Additionally, the reform movement has shifted tactics away from calls for regulation protecting children from violent and sexual content, in favor of content ratings that empower parents to shield their children while freeing the entertainment industry to create adult-oriented content. The MPAA introduced their first motion picture ratings in 1968 (Randall, 1968). In the 1980s, the music industry would introduce their “Parental Advisory: Explicit Lyrics” label, following pressure from parents’ groups and Senate hearings. In the 1990s, the video game industry created the self-regulatory Entertainment Software Rating Board (ESRB) to assess whether a game is appropriate for all audiences, teens, or mature audiences. This trend
would extend to the comic book industry, starting in 2001 when the largest comic book publisher, Marvel Comics, abandoned the Comics Code in favor of an age-based ratings system. All major publishers would follow suit, leading to the demise of the Comics Code Authority in 2011 (Wolk, 2011). While some may see this trend toward ratings as bringing the last vestiges of Wertham’s influence on comic books to an end, he got what he wanted all along—limiting young children’s access to violent and sexual material.

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Depression in the TV Newsroom

Steve Beverly

Ten years ago, sharing this story would have been difficult. Today, opening up about my personal bouts with depression over the past 26 years is essential.

In August 2014, actor-comedian Robin Williams died. Hours later, we learned through news accounts of his extreme struggles with depression and related forms of mental illness. On the night of Williams’ death, I predicted to a colleague that we would see a quick blitz of stories on national and local television news about depression and mental illness, which would last two to three weeks. I was right.

We know all too well the personal stories of many national figures in news and sports media who have been through the lowest-of-the-low challenges in their lives. Often, viewers are stunned to learn these public figures have struggled with mental illness. The following is only a partial list of those figures, both living and dead, who have battled depression: “60 Minutes” anchor Mike Wallace, columnist Art Buchwald, Fox sportscaster Terry Bradshaw, the late ESPN sports commentator John Saunders and Minneapolis meteorologist Ken Barlow.

Add me to that list. Depression has been as real for me as eating a meal or taking a walk. Stresses from television news, as well as my own personality makeup, were significant contributing factors. I, a former reporter-anchor-producer and news director, have battled depression for 26 years. My initial diagnosis came when I was still an active news director in 1991.

Since then, I have had two subsequent serious confrontations with depression that were at least related to supervising a daily, student-produced cable television newscast as a broadcast journalism professor. I served as a news director and assistant news director in three Southeastern cities in the 1980s. After a few years out of the TV news industry to work on a graduate degree, I returned as a news manager at WBBJ in the small market of Jackson, Tennessee, in 1990.

A recurring cliché today is “changing the culture.” Frankly, we had to establish a culture at my news station. No news director or general manager had been employed for more than six months. I won’t bore you with the litany of problems that had to be navigated. If I told you we had no two-way radios to direct crews in the field and no working video edit station on my first day on the job, you would quickly get the point.
In the first 13 months on the job, the hills to climb became mountains. Leading a staff with three fewer people than I had been assured were on the payroll, I made the mistake of attempting to do the jobs of two and sometimes three people. There was one problem with that strategy: I was not and never will be Superman.

As the months elapsed, I knew I was not myself. I was chronically fatigued and on the verge of a total collapse. I fooled myself into thinking things would improve, but I had no idea how to make that happen. No additional staffing was on the horizon. Likewise, I felt enormous guilt about making the decision to relocate to Jackson. Extreme guilt coupled with exhaustion are two of the prime ingredients of depression.

On a Monday evening in June 1991, I opened the front door of my house, dropped to my knees and had what was then referred to as a nervous breakdown. Today, the customary term is an emotional collapse.

I erupted into uncontrollable tears. The harder I tried to stop, the worse the crying spell became. For 90 minutes that felt like nine hours, I continued to cry. After making several phone calls to determine how best to help, my wife convinced me to get in the shower and stay there until I could calm down, if that were possible. Eventually, I did.

For the next 42 days, television news was not a part of my life. I began regular visits with a counselor who immediately told me if I expected to bounce back in a few days, I was sorely mistaken. For a Type A personality accustomed to solving problems quickly, those words were the equivalent of a prison sentence. Yet, he was right. Depression is not a take-two-tablets-and-call-me-in-the-morning ailment. Recovery requires patience—a virtue in small supply in most journalists.

In my blog, The Old TV News Coach, I detail my road back—which included staying out of the newsroom for six weeks, becoming regulated on antidepressant medication and learning to accept I am a human being and not a miracle worker.

In 2010 and 2014, I experienced similar bouts with depression, each of which extended for periods in excess of four months. The difference in each of these cases was that I continued to work while masking my illness from my colleagues and students. The wisdom of that decision can be debated. In both of those situations, anxiety attacks accompanied the depression, especially in large crowds or when volume levels of group conversations increased. I learned that one expends so much physical and emotional energy attempting to camouflage depression that sheer exhaustion often occurs at the end of the workday.
So why tell my story now? Journalists are in one of the most stress-driven professions. They are multi-deadline driven every day. They see death and violence on a perpetual basis. They are on call 24/7 to go to the next emergency. If they are married, they juggle family life with the demands of their jobs—akin to rowing a boat in nine-foot tidal waves. They are asked to cover more hours a day of news than ever with precious few staff additions to help. They deal with angry calls from viewers who are, at times, uncontrollable.

News directors preach mental toughness to their staffs as much as Nick Saban does to the Alabama Crimson Tide. Many deal with those pressures quite well. Others struggle with them, but because they work in an industry that demands for its personnel to be “up” every day, they press on even when they are fighting a battle of emotional fatigue.

Today’s percentages on mental illness suggest that in newsrooms with high-stress cultures, one or more employees may be struggling with depression but will refuse to admit its warning signs. Why? In the workplace, the idea of admitting to depression is still considered a suggestion of weakness in some organizations. Some news managers contribute to that stigma because they still do not understand or refuse to consider the possibility of emotional illness. In the story “A Mental Health Epidemic in the Newsroom,” in The Huffington Post, Gabriel Arana quotes statistics of a national study examining emotional disorders among journalists:

> Upwards of 85 percent experience work-related trauma. Other research shows that 4 to 28 percent suffer from post-traumatic stress disorder over the course of their careers, and up to 20 percent experience depression.

Sadly, a percentage of journalists have refused to seek help and have slid down a dark path, occasionally even to suicide. In his posthumous autobiography, the late ESPN sports commentator John Saunders discusses once desiring to jump off the Brooklyn Bridge.

Depression is not one-size-fits-all. I reach out to any journalists who have been there or are at that point right now. My life in television news sank into a dark direction. I am also proof that you do have hope. You can make it back. To do that, you have to admit you need help, seek help and be patient with your recovery.

I often speak to news directors and tell them: your staff members are not the only ones vulnerable to mental illness. You are at the helm of that demanding ship. A Forbes magazine survey determined that television news directors have
the third most stressful job in America behind law enforcement officers and air traffic controllers. If you are not careful, it could be you headed down the path of mental illness.

The only way to strip away the remaining stigma of mental illness is for those of us who have experienced it to engage in an open dialogue about our personal stories. We should not need the death of an international celebrity to have an open discussion about dealing with and overcoming depression.
Reflections
Beth Madison

Weedy Love

“I love You, O LORD, my strength.” Psalm 18:1 NIV

As the only child of a horticulture professor smitten every year with his vegetable garden, I learned at an early age about weeds. I learned they were not our friends and that rabbits and squirrels would eat anything but them. I also discovered that it was my job to pull or hoe those weeds, which seemingly sprang up overnight in the garden. They also grew alarmingly fast during the day, trying to take over the vegetables – hence the term, “growing like a weed.”

I couldn’t skip a day or two weeding because Daddy taught me that any day those weeds were there, they were taking away water, nutrients, sunlight, and space from the vegetables. We wanted the vegetables on our dinner plates, in our pantry, and in the freezer, while the weeds belonged in the trash heap. Thus, I was indoctrinated early into the evil that is weeds.

Yet the other day, I was surprised to find myself praying, “Lord, please let my love for You grow like a weed” and meaning it. All the while I knew what this kind of growth would look like in my life—fast, furious, and consuming all available resources. It would be thirsty and break up the concrete of my heart. It would be demanding and choke out the less than best; it would be hungry, sending down penetrating roots to my sinful depths. Wild.

Then I realized this weedy kind of love was exactly what I needed for the garden of my life to bear fruit for God (see John 15:1-6). Anything less than a weedy love would leave me weak in my daily challenges and trials. Without a consuming love-growth, my work, friendships, and aspirations would suffer. Anything less than a weedy love would not stand firm in faith over a lifetime, hold fast in the doubts, encourage in the pain, or bring life to that which seemed dead.

Most of all, anything less than a weedy love would not accomplish God’s plan for His glory to be evident in me. I want the whole world to know His love through me. “O God, You are my God, earnestly I seek You; my soul thirsts for You, my body longs for You, in a dry and weary land where there is no water. Because Your love is better than life, my lips will glorify You” (Psalm 63:1-3 NIV).
Humility

“With Your help, I can advance against a troop; with my God, I can scale a wall.” Psalm 18:29 NIV

In many of my college courses, I often felt that I was alone against the bloodthirsty horde of complicated equations and theories and that everyone except for me understood the material. On most days, I felt others were successfully advancing against the looming homework assignments onto victory at test day.

Now as a teacher of those same formulas and scientific laws, I realize that my perception of everyone else was dead wrong. Only the rare, gifted student grabs the concepts and connections on the first go-round and attaches application to theory without guided instruction.

As a Christian, there were days when I felt like that student from long ago—alone against an insurmountable list of “do’s” and “don’ts” mixed with expectations and examples from Scripture. At times, I felt as though everyone except for me understood what it meant to be a Christian. It seemed that everyone else was living a life filled with humility, generosity, and contentment while achieving daily victories against pride, greed, and envy. I realize, again, that my perception was wrong.

“Super-Christians” don’t exist; there are only humble believers who know Who God is and who they’re not. In the words of Bishop Temple, “Humility does not mean thinking less of yourself than of others, nor does it mean having a low opinion of your gifts. It means freedom from thinking of yourself at all.”1 Humility within believers gives the opportunity for Christ to work out the miraculous. Humility drives them to pursue God with whole hearts that thirst for more (see Psalm 63:1-8 and Matthew 5:6).

And I want that.

I am so grateful that humility is not reserved for the rare gifted student (or teacher) of Scripture and that it is not confined to the exceptional prayer warrior or preacher. Humility is available to any and to all who ask for it in repentance and full acceptance of mercy’s redemption as they set themselves aside—just like Jesus did (see Philippians 2:6-11).

Do you want that too?

Then come to Jesus without letting anything or anyone stand in your way (including yourself). Come and find that He is indeed gentle and humble in heart and will teach us what it really means to be free (see Matthew 11:28-30).

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Race, Religion, and Region in Flannery O’Connor and Federico Garcia Lorca

Roger Stanley

“The Negroes have gone home with Lorca to the heaven of the lady whose train overflows.” –Bob Kaufman

For his first trip abroad and as precursor to the first of his books “inspired by the city, rather than the country” (Garcia Lorca xv), Andalusian poet Federico Garcia Lorca chose upper Manhattan for a nine-month stay in 1929-30, publishing posthumously the rather generically titled *Poet in New York*. Prior to an extended stint at Andalucia, her family’s Georgia farmhouse, the Southern prose stylist Flannery O’Connor spent time in New York state and began crafting stories which often juxtaposed rural and urban settings—albeit Atlanta more often than New York City to represent the latter. Furthermore, O’Connor’s time with friends Sally and Robert Fitzgerald in the state of Connecticut might find a parallel in Garcia Lorca’s one-month sojourn in Vermont visiting his friend and fellow poet Philip Cummings. All this is to suggest that the concepts of “South” and “North” apply across national, even continental lines—as of course do the phenomena of farmland and skyscrapers. Both writers ultimately, though for different reasons, threw in their lot with the Southern, the rural. As the critic Sebastia Gasch put it, Garcia Lorca “breathed ‘South’ through every pore” (qtd. in Gibson 175). Thus, his post-Manhattan visit to Cuba led him to deem that island “God’s America, Spanish America” (Garcia Lorca 197). Along with religion—and for that matter race—the seminal factor of region unites the Andalusian poet and the woman from Andalucia; these three areas can lead us to an explication of the power in their poetry and prose.

Before turning to the race/religion/region triad, some affinities between O’Connor and Garcia Lorca might be examined—less on the biographical than the aesthetic plane. While the Georgian attained to a higher level of formal education than the Andalusian, each had a prominent anti-academic, even anti-intellectual streak; thus Garcia Lorca could announce in a roving lecture he often gave to Spanish audiences after returning from New York that he provided in his book a “lyrical reaction, with sincerity and simplicity: two qualities that come with difficulty to intellectuals, but easily to the poet” (Garcia Lorca 185). One can’t help thinking of the paradox of the New Criticism-trained O’Connor’s own sojourns among the
groves of American academe where she read her beautiful, funny stories—while often using her introductions to unilaterally steer the audience’s interpretation of them. Both writers knew how to use public appearances in higher education contexts for their own purposes. Indeed it has been said of Garcia Lorca by scholar Christopher Maurer that he “creates a partly fictitious narrative of how he wrote [his] poems, and interprets his own book[s] [sometimes] too narrowly [in his public appearances]” (Garcia Lorca xix). Or as the Spanish poet himself put it multiple times apropos of his post-New York lecture, often given at Spanish universities: “I will [now] read [from] the book and analyze it at the same time” (Garcia Lorca 181).

Both writers were not only visual in their verse and prose, but showed prowess in the specific area of drawing and illustration. While O’Connor rarely illustrated her mature work, the highly caricatured cartoons she did both in high school and in college for her undergraduate yearbook and newspaper have been preserved and referred to by literary critics. Similarly, Garcia Lorca not only provided drawings for Poet in New York, but he also captioned one of his enigmatic caricatures with these O’Connor-esque words: “Only mystery enables us to live, only mystery” (Gibson xxii). In 1927, two years before he left for America, an exhibition of twenty-four Garcia Lorca drawings appeared in Barcelona, abetted by his Catalanian friend Salvador Dali. While no one would call O’Connor’s visual or verbal work “surrealist” in the strict sense of that early twentieth century art movement, the term has rightly been used to describe Garcia Lorca’s sketches: according to his biographer Ian Gibson, these sketches included “severed hands, drops of blood, skeletons, sailors with empty eye-sockets [and] decapitated heads” (371).

The term “grotesque,” for American literary critics, might evoke both Flannery O’Connor and Sherwood Anderson. The word has been applied to Garcia Lorca’s work as well, most notably by Gibson in his analysis not so much of the works from Poet in New York but of the Spaniard’s stage creations. Calling the play The Love of Don Perlimplin for Belisa in His Garden “farcical and grotesque” (156), Garcia Lorca’s finest British scholar goes on to place that drama just this side of a Theatre of the Absurd label. As his fellow Columbia University dormitory resident John Crow has phrased it, Garcia Lorca liked talking (and presumably writing) about “violent death, idiots, or any grotesque or abnormal person” (Gibson 270).

Not John Crow, but Jim Crow provides a rubric for the racial strains through which we might next compare these two great writers. Much has been made of race in such O’Connor stories as “The Artificial Nigger” and “Everything that Rises Must Converge,” not to mention myriad references in the letters collected in The Habit of Being or her refusal to host black writer James Baldwin on the Jim Crow Georgia turf of her friends and family. Aside from a later examination of region
in her twin stories “The Geranium” and “Judgement Day,” this paper will not recapitulate these issues. García Lorca, conversely, offers in Poet in New York a relatively unambiguous take on the vibrancy he associates with the citizens of Harlem circa 1929-30, going so far as to assert that “color is the sign of God’s artistic genius” (xxii). Of the ten eventual sections in his New York volume, the grouping called “The Blacks” was composed first.

The six-page poem “King of Harlem” itself is demonstrative of García Lorca’s empathy for the downtrodden urban black masses, a demographic much different from the well-dressed, bespectacled Negro encountered on apartment stairs by Dudley in “The Geranium” or the black actor whom Tanner meets in “Judgement Day.” The denizens mentioned in “King of Harlem” are variously weeping, murmuring, or “crying in confusion” (x) throughout its twenty-three stanzas; occupationally, they are doormen, cooks, and waiters, rather than bourgeois thespians. The vivid use of literal and symbolic color imagery sets the poem apart from others in this section, indeed from the volume as a whole; mulattoes “[think] of turning their torsos white,” while the “low yellow” of “the blond women’s chlorophyll” (33) creates a Northern racial dynamic every bit as complex and potentially hostile as in O’Connor’s Georgia. As Ian Gibson concludes, “The King of Harlem’, written little more than a month after Lorca arrived in New York, constitutes . . . an impassioned plea on behalf of the Blacks” (256).

Other individual works in Poet in New York stand out not only for their regional references, but also because of the racial solidarity the man from southern Spain had with the dark-skinned Manhattanites he walked among in 1929-30. Black women are forefronted especially in the poem “Little Stanton,” where they “spread love potions made from rats in the bedrooms upstairs” (93). Or consider the poem whose subtitle “From the Tower of the Chrysler Building” references a clear Manhattan landmark: it features this same group of women “drowning in mineral oil” (153). None of this imagery should be surprising from a visitor who spent much of his free time attending black revues and comedy sketches. García Lorca loved jazz and blues and gospel, comparing these American genres to his own deep song/cante jondo form, and further noting the affinity of European Gypsies with African Americans. His letters home come close to idealization in phrases like “the deep, moving melancholy that all blacks have” (214); of the book in progress he tells his parents, “They are typically North American poems and almost all of them have a black theme” (Gibson 256). García Lorca references his own native history in another letter, opining on “the racial reasons for Spain’s great struggle against Protestantism” (216).

García Lorca was every bit the letter-writer Flannery O’Connor was; biographer Gibson labels these letters “his fervent missives” (48). A certain disdain of “do it
yourself religion” (to use O’Connor’s repeated term) does rise to the fore in the writings of both these cradle Catholics. For Garcia Lorca, whiling away a Saturday night in the Cotton Club paired nicely with the Sunday morning pews of Harlem’s Riverside Baptist Church, though on the whole he was dismissive of the Protestant denominations O’Connor knew so well: in the story “Greenleaf,” the fictional Mrs. May had a certain amount of trouble wrapping her mind around Mrs. Greenleaf’s outwardly cultish behavior too. O’Connor’s sympathies are more with Mrs. Greenleaf in garden and home. Any disdain here refracts back upon the pseudo-pieties of Mrs. May in that famous O’Connor story.

Ian Gibson qualifies what he terms “the vehemence of the poet’s reaction against Protestantism” (254) by pointing out two reasons the possibly lapsed Garcia Lorca might exalt Spanish Catholicism nonetheless. The first is formal, aesthetic; during his first few months in America, he finished the long poem entitled “Ode to the Holy Sacrament,” begun a few years earlier. Secondly and more basic, Gibson believes Garcia Lorca had a “need in this strange city to find something spiritually familiar” (254). Gibson points out that the Andalusian, long before the New York experience, rebelled against the religion of his rearing, “retaining his admiration for Jesus but feeling a passionate hatred for the Christian God” (65). This leads the biographer to use an adjective for the poet’s output which Americans would no doubt find at odds with his anti-Protestant rhetoric: “Lorca’s work has an evangelical root, revealing a strong tendency on the part of the poet to identify with Christ” (67). Though Gibson speaks mainly of the pre-New York poems here, he captures something about a writer who once said he insisted on the need “to be both religious and profane” (69).

Certainly the lyrics in *Poet in New York* feature numerous biblical allusions which an Orthodox, a Catholic, or a Protestant poet might employ—indeed a Muslim or Jew or agnostic might have these allusions on hand too. Among these are the patriarch Moses in “The King of Harlem,” Adam and Eve in “Double Poem of Lake Eden,” and Christ Himself in “Cry to Rome.” In “Crucifixion,” Garcia Lorca works the New Testament imagery hard: cross, nails, thorn, lamb, and Pharisees. He tweaks the great Protestant reformer in the poem “The Birth of Christ,” saying “the snow of Manhattan . . . carries pure grace while idiot clergymen follow Luther in a line” (77). Christopher Maurer may be only partially right to see no religious consolation offered in *Poet in New York*, but his characterization of the narrator throughout the volume as a “wrathful poet-priest” (Garcia Lorca xix) does offer insight. Richard L. Predmore probably didn’t have the apostle Paul in mind when he identified the three main themes of *Poet in New York* as “social injustice, dark love, and lost faith” (Garcia Lorca xxi), yet the latter two clearly correlate with the first letter to the Corinthians.
Before examining some specifically regional influences from *Poet in New York*, let’s be reminded of O’Connor’s fictional take on the city, as revealed in her Iowa MFA thesis story “The Geranium” and its new version over a decade and a half later, “Judgement Day.” The latter’s first paragraph characterizes the Big Apple in this way: Tanner’s “window looked out on a brick wall and down into an alley full of New York air, the kind fit for cats and garbage” (O’Connor 676). Tanner’s 1940s counterpart Old Dudley seems to view America’s largest city a bit more favorably, if abstractedly: “It was an important place and it had room for him” (702). Unlike Garcia Lorca, O’Connor’s New York vision was grounded in a South with shared national and cultural ties to the city—but without a continuous stint of visitation on her part. No true outsider vision can be said to permeate O’Connor’s stance toward New York City, a la the Spanish poet whose ostensible reason for basing himself at Columbia University was to learn English (though he made mediocre headway here). In O’Connor’s stories, Dudley and Tanner seem incapable of separating the racial and class dynamics down home from Yankee customs and mores. Both characters recast black men met in their apartment buildings as countrified citizens from the past, Tanner even suggesting South Alabaman provenance for the well-dressed urban actor who no doubt has never crossed the Mason-Dixon Line in his life. While some critics argue that Dudley has an expectation of death after the crash of the geranium pot, the best the deceased Tanner can hope is that his remains get shipped back south to Corinth, Mississippi, by his disaffected New York-based daughter.

Whatever Garcia Lorca might have registered about his nine months in New York at the end of the 1920s, cats and garbage and the Othering of black men were not distinctive. He did live through the Wall Street crash and was generally critical of the capitalistic, materialistic ethic of the United States. Even the eventual title *Poet in New York* has been glossed by Maurer as something like the paradox of how anyone can even be poetic in such an indifferent beast of a city (30). Contrasting North America with his later itinerary below its borders, the poet said, “New York is the world’s greatest lie; Cuba is our America” (Garcia Lorca xix). The plural pronoun here might embrace both the Southern European nation of Spain and pre-Reformation western Christianity, which Cuba prior to Castro embraced strongly. In the letters home while at Columbia, Garcia Lorca employs phrases like “sprawling Babel” and “belly” (201-202) to describe his urban milieu, notwithstanding his occasional use of more positive language to describe its working people of all races.

As for the poems themselves, they reflect both geographical and literary allegiance to the wonders associated with the great metropolis. In various poems, Garcia Lorca references by name both the Hudson and East rivers, the great bridges
spanning them like the Brooklyn and the Queensboro, and touristic staples such as Coney Island and Battery Place. Even more significantly, he evokes not only that giant of American urban lyricism Walt Whitman, but implicitly the collage-like prose of John Dos Passos, whose *Manhattan Transfer* he had recently read. Within the oft-anthologized poem “Ode to Walt Whitman,” the Spaniard mentions the American poet five times—most often in the context of a New York landmark.

Evidence shows that Garcia Lorca boarded the transatlantic steamer depressed, landing during the 1929 North American heat wave “suicidal” in the view of his fellow Andalusian poet Luis Rosales (Gibson 263). Gibson seeks to debunk this notion and its accompanying myth that the New York stint rejuvenated him and provided equilibrium. We know Franco and his henchmen assassinated the poet six years after his return—and that it took a subsequent four years for *Poet in New York* to reach publication. Maurer notes most American reviewers all but ignored the element of social criticism in the volume (xxix). One who did not—O’Connor’s fellow Georgian, Conrad Aiken—wrote in the *New Republic* in September 1940, “There has been no more terribly acute critic of America than this steel-conscious and death-conscious Spaniard, with his curious passion for the modernities of nickel and tinfoil and nitre, and for the eternities of the desert and the moon” (Garcia Lorca xxix).

**Works Cited**


Fractals, The Trinity, and Music

Joshua Veltman

This essay is a foray into theological aesthetics. Theology attempts to understand the nature of God using revelation and reason. Aesthetics is concerned with the perception of those qualities that make something beautiful. A hybrid of the two, therefore, seeks to make connections between the nature of God and those creations that are said to possess beauty. The particular connection explored here is between the fractal qualities exhibited by both the Godhead and music. Fractals are patterns that exhibit self-similarity at multiple scales. Component parts resemble the shape of the whole, and vice versa. The Trinity exhibits a fractal-like pattern of reiterative containment, and that pattern is reflected in both divine creations (fractals in nature) and human creations (fractals in music).

Fractals were first discovered in the field of abstract mathematics. Two fractals developed by the Polish mathematician Waclaw Sierpiński (1882-1969) will suffice to demonstrate the concept (“Sierpiński Gasket;” see Figure 1). The Sierpinski gasket is constructed by removing an inverted equilateral triangle from the middle of a larger triangle, then repeating the process for each remaining triangle ad infinitum. Each component triangle ends up looking like the entire figure as well as every other component triangle at all scales. In the Sierpinski carpet, a square is divided into nine smaller squares with the center square removed (see Figure 2). The process then repeats for each of the remaining squares ad infinitum.

Fractal research might seem like playing around with interesting patterns, but it turns out to have important real-world applications. For example, many mobile phones contain an antenna in the shape of a Sierpinski carpet, which is much better at picking up a wide spectrum of radio frequencies than traditional pole antennas. As is so often the case with pure research, the Sierpinski carpet was a solution in search of a problem.

Certain reiterative mathematical functions give rise to fractal patterns called Julia sets (see Figure 3), named for French mathematician Gaston Julia (1893-1978). The French-American mathematician Benoît Mandelbrot (1924-2010) combined all of the Julia sets to construct the ultimate fractal, famously known as the Mandelbrot set.¹

¹ Creating “Mandelbrot zooms” seems to be something of a cottage industry on YouTube these days (for example, see “Mandelbrot zoom 10^227”). In a Mandelbrot zoom, the point of view zooms in to smaller and smaller scales of the Mandelbrot set, and the same complex patterns continually resurface.
Figure 1: The Sierpinski gasket. Graphic generated by the author.

Figure 2: The Sierpinski carpet. Graphic generated by the author.

Figure 3: A visual representation of a Julia set (Majewski).
Mandelbrot literally wrote the book on fractals in 1982, calling it *The Fractal Geometry of Nature*. As this title suggests, fractals are not restricted to the deal realm of mathematics; many phenomena in nature also exhibit a fractal geometry, meaning that their physical layouts are self-similar at multiple scales. Trees, mountains, louds, snowflakes, river systems, coastlines, lungs, blood vessel systems, and many other natural beauties all possess a fractal geometry (Mandelbrot).

Everywhere one looks, from the cosmic scale to the subatomic level, new examples of fractals can be found. They are so prevalent, in fact, that fractality seems to be fundamental to the nature of reality. The fact that fractals are deeply embedded in the created order can teach us something about God’s attributes. As the Apostle Paul says in Romans 1:20, “since the creation of the world God’s invisible qualities—his eternal power and divine nature—have been clearly seen, being understood from what has been made” (NIV). The configurations of the natural world give witness to the glory of God.

A new fractal constructed of nested groups of three circles will be helpful for thinking about the connections between God and fractality in the created order (see Figure 4). The circle is a reasonable place to start. Since circles have no beginning and no end, they have long been used to symbolize the eternity of God. Any given circle consists of only one curve, reflecting that there is but one God. At the same time, it has an infinite number of sides of infinitesimal length. The geometry of the “Trinity Fractal” represents the reiterative Tri-unity of God. God is One but at the same time is composed of three Persons. Each Person in turn is not merely a part of the whole, but contains within Himself the entire Godhead, which is composed of three Persons, ad infinitum. This model finds resonance with a description of the Trinity by Hilary of Poitiers, a fourth-century church father, who said of the Persons of the Trinity that “these Beings can reciprocally contain One Another, so that One should permanently envelope and also be permanently enveloped by, the Other, whom yet He envelopes” (234).

An animated version of the Trinity Fractal (available online; see “Perichoresis”) adds motion and color to express the dynamism of the Trinity. In the “open” configuration, where three main circular lobes are visible, each lobe contains three more circles in the same configuration, and each of these contains three more circles. This pattern of circles creates a “three to the power of three” structure. The pattern’s fractal nature is most easily apprehended in the open configuration, but fractality is maintained in the closed position and in all the transitional states in between.

This animation is also a visualization of perichoresis, a Greek term coined in early Christian times to convey the dynamism of the relationships within the Trinity.
The literal meaning of the term is to “dance or flow around” (Keller 215). C. S. Lewis captures the feeling of the concept in a passage in *Mere Christianity*, saying:

In Christianity God is not an impersonal thing nor a static thing—not even just one person—but a dynamic pulsating activity, a life, a kind of drama, almost, if you will not think me irreverent, a kind of dance. . . . [The] pattern of this three-personal life is . . . the great fountain of energy and beauty spurring up at the very center of reality. (175)

Cornelius Plantinga describes perichoresis this way:

The Father . . . Son . . . and Holy Spirit glorify each other. . . . At the center of the universe, self-giving love is the dynamic currency of the Trinitarian life of God. The persons within God exalt, commune with, and defer to one another. . . . When early Greek Christians spoke of perichoresis in God they mean that each divine person harbors the others at the center of his being. In constant movement of overture and acceptance each person envelopes and encircles the others. (20-21)

One final note on the animation: it cycles through the entire color spectrum, ending where it began (at red). This linking of the beginning and end through color suggests that one should imagine the animation continuing infinitely. The color cycle therefore represents the infinitude of God, who also has no beginning and no end.
As asserted above, fractal patterns exist in music as well. Some further groundwork must be laid, however, before music can be discussed. Consider the following thought experiment involving a tree. Recall that trees exhibit a fractal pattern of branching. What would happen if one measured the lengths of all the limbs of a tree, disarticulated them into a pile, and then measured them again? All the same dimensions would be measured both before and after the disarticulation. The distribution of dimensions would remain the same, but the geometry would be lost. This hypothetical state of affairs demonstrates an important distinction in fractal research: fractal geometry v. fractal distribution. A pattern with a fractal geometry will necessarily have a fractal distribution, but the reverse is not also true. In fact, many natural phenomena occur in fractal distributions but not in fractal geometries.

One such phenomenon is the pattern of impact craters on the moon. The craters are randomly distributed across the surface, so the crater pattern does not exhibit a fractal geometry. However, when one astronomer measured the craters’ dimensions and counted how many of each size occurred, he discovered a distribution that was later recognized as a fractal one (Cross). The moon has relatively few large craters, more medium craters, and a great deal of small craters. In other words, the larger the craters, the less frequently they occur, and the smaller the craters, the more frequently they occur. The relationship between the sizes of craters and their frequency falls onto an exponential curve. The fascinating result of this relationship is that the pattern will look similar regardless of the field of view. As Cross observed, the “Ranger Moon pictures . . . all show a curiously uniform appearance, in spite of large changes of scale” (245). This uniformity regardless of scale is an example of scale invariance: one can zoom to any scale and the pattern will look the same.

The Trinity Fractal introduced above provides a convenient example for analyzing the characteristics of fractal distributions. Since the design possesses a fractal geometry, it also necessarily exhibits a fractal distribution. If one were to move the various circles around randomly, the geometry would be lost, but the distribution of dimensions would remain. With an arbitrarily chosen radius of 500 for the largest circle, Descartes’ Circle Theorem (Weisstein) can be used to calculate the radii of the smaller circles (see Figure 5a). The next step is to count the instances of the variously-sized circles. These counts are displayed in the f column of Figure 5a (f stands for frequency). Reading from bottom to top, one can see that the numbers increase by powers of three. This pattern of increase stands to reason because there are three circles within every larger circle. Figure 5b shows an XY scatter plot of the distribution, with radius measurements on the X-axis and frequencies on the Y-axis.
Fitting a trend line to the points in the scatter plot reveals a curve that decreases exponentially (see Figure 6a). In other words, as the radius increases, the frequency of occurrence drops off exponentially. Phenomena that fall onto this kind of curve are said to obey a power law. An effective way to visually confirm power-law relationships is to give the axes of the graph logarithmic scales instead of linear scales. This modification of the axes causes the trend line to straighten out, as seen in Figure 6b. The graph also includes the mathematical equation for this particular
curve as well as an R² value. R² is a correlation measure and indicates how well the data points fit to the trend line. This value can run from 0, meaning no correlation at all, to 1, meaning a perfect correlation. The R² value is 1 because the Trinity Fractal is an artificially constructed design, not subject to any of the variability found in nature.

What kind of fractal geometries or distributions are found in music? A few rare pieces of music exhibit fractal geometries, although the composers were not aware of fractal theory and were pursuing other goals. The fractal geometries arose incidentally as a result of certain compositional choices they made. Examples include mensuration canons from the Renaissance Era (Brothers 2002-2013) and certain pieces by J. S. Bach (Brothers 2007).

Fractal distributions have been found in music in the domains of both rhythm and melody. In a 2012 paper, Levitin et al. analyzed a large sample of mostly Western music and demonstrated conclusively that note durations follow a fractal distribution. A 1989 paper by Hsü and Hsü showed that melodic intervals² in a small handful of Classical and folk pieces are fractally distributed. A 2009 paper by Harlan Brothers did the same for the Bach Cello Suites. The results on melodic intervals are intriguing but limited, given the small sample sizes and the restricted repertoire.

A challenge facing anyone who wants to carry out this type of analysis is the sheer labor-intensiveness of the task. A single piece of music typically contains hundreds or thousands of notes. While studying rhythm, Levitin and his collaborators were able to analyze a large sample of thousands of musical works with the help of computers and specialized software called the Humdrum Toolkit (Huron 1995). The analyses carried out for this paper, the results of which are presented below, were also completed with the help of the Humdrum Toolkit. In an effort to replicate and extend the findings of Hsü and Hsü and Brothers concerning melodic interval, custom scripts using the Humdrum tools were written to investigate representative samples of music from different eras and cultures.

The first sample analyzed was a group of 125 Gregorian chants. Gregorian chant was the primary genre of sacred vocal music in the Middle Ages. These chants consist of a single melody line with no accompaniment of any sort. The analysis focused on melodic intervals. The logical unit for an analysis of this sort would seem to be the semitone, the smallest interval normally allowed in Western music and the distance between any two adjacent keys on a piano. The initial results looked promising but messy. After further analysis, it became clear that the semitone is

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² A melodic interval is the pitch distance between two successive notes in a melody.
not the proper unit of measurement, but rather diatonic interval class. A diatonic interval class is the distance between two scale degrees (positions that notes occupy on the scale), without regard to interval quality or octave displacement. For instance, major thirds, minor thirds, and major tenths are all treated the same. Furthermore, comparisons of ascending v. descending intervals revealed no significant differences, so the results of both were combined.

As Figure 7 reveals, diatonic interval classes are indeed fractally distributed in the Gregorian chant sample. The seconds, thirds, fourths, and fifths that make up these melodies fit rather closely on the trend line of a power-law equation, with an $R^2$ value of 0.9. There are no sixths or sevenths shown in the results because there simply are none in this sample. It is a feature of Gregorian chant style to have a fairly narrow range and to proceed by conjunct (smooth) motion.

The next sample for analysis consists of the entire body of masses by Giovanni Pierluigi da Palestrina (c. 1525-1594), an Italian Counter-Reformation composer. There are 102 mass compositions in total, each consisting of several movements. This music is polyphonic, meaning that several melodies are combined and heard at once. Palestrina’s masses feature anywhere from four to eight separate voice parts; all voice parts were included in the analysis, the results of which are shown in Figure 8. In contrast to the Gregorian chants, this repertoire does contain sixths and sevenths (although not many). The fit is not quite as good as with the chants, which seems to be partly on account of the relatively high frequency of fourths and fifths. This surplus of fourths and fifths is perhaps due to the bass voice providing
a harmonic foundation in many cases, especially at cadences, rather than outlining a melody as such. Nevertheless, the diatonic interval classes in this repertoire do clearly fall into a fractal distribution.

Representative samples of both Medieval and Renaissance music exhibit a fractal quality in terms of melodic intervals. The 371 chorales by J. S. Bach (1685-1750) provide a suitable sample from the Baroque era. This repertoire is also polyphonic and features four different voice parts. The soprano lines came from monophonic chorale tunes used in early Lutheran worship; Bach added the alto, tenor, and bass lines to harmonize those chorale tunes. The melodies of all four voice parts were analyzed. As with the Palestrina masses, the forths and fifths are slightly elevated, but the overall fit is very good (see Figure 9).

For the Classical era, the sample considered consists of the string quartets by W. A. Mozart (1756-1791). There are some twenty-seven different quartets for a total of eighty-two separate movements. String quartets feature two violins, a viola, and a cello. All of these instrument parts were included in the analysis. As Figure 10 shows, the fit is extremely good. Mozart’s string quartets conform almost perfectly to the fractal distribution of diatonic interval classes.

A sample of “35 Lieder” by Franz Schubert (1797-1828) represents the Romantic era. Lieder are German-texted art songs for solo voice with piano accompaniment. Only the voice parts were used for this analysis. Again, the fit to the trend line is extremely good (see Figure 11). Schubert followed in the footsteps of his Austrian countryman Mozart in writing melodies whose intervallic content obeys the power law.
Figure 9: Results for a sample of Baroque music (“371 Chorales” by Bach).

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Figure 10: Results for a sample of Classical music (Mozart’s String Quartets).

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Figure 11: Results for a sample of Romantic music (“35 Lieder” by Schubert).

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Austria also produced the three composers whose works feature in an analysis of music from the twentieth century. The Second Viennese School consisted of Arnold Schoenberg (1874–1951), Alban Berg (1885–1935), and Anton Webern (1883–1945). They all composed atonal music—that is, music without a tonal center. To guarantee atonality, Schoenberg invented the diatonic interval class serial system. The first step in serial composition is to construct a tone row—a row that uses all twelve pitches in the octave exactly once. This row is then used to generate building blocks for the entire composition. The analysis was performed on these tone rows rather than entire pieces, since that was the dataset available. However, one can extrapolate these results to the repertoire as a whole, because the compositional process for these pieces involves stringing together many manipulated versions of the rows. Thus, the interval patterns seen in the tone rows would be repeated many times in the pieces themselves. A group of eighty-five tone rows comprises the sample, representing eighty-five compositions in total.

The unit of measurement in this analysis differs from the previous analyses. The table of frequencies in Figure 12 lists eleven different semitone distances rather than seven diatonic interval classes. This departure occurs because the repertoire

<table>
<thead>
<tr>
<th>semitones</th>
<th>f</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>259</td>
</tr>
<tr>
<td>2</td>
<td>145</td>
</tr>
<tr>
<td>3</td>
<td>116</td>
</tr>
<tr>
<td>4</td>
<td>124</td>
</tr>
<tr>
<td>5</td>
<td>60</td>
</tr>
<tr>
<td>6</td>
<td>88</td>
</tr>
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<td>7</td>
<td>37</td>
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<tr>
<td>8</td>
<td>58</td>
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<tr>
<td>9</td>
<td>31</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Figure 12: Results of analysis for atonal music from the early 20th century (“Tonerows Found in the Music of Schoenberg, Webern, and Berg”).

3 A tonal center, or tonic, is a pitch that serves as a reference point for all other pitches in a passage of music. The sense of tension and release in music is based in large part on harmonies departing from the tonal center and then returning to it.

4 These manipulations include transpositions (moving all pitches of the row up or down by a specified distance); retrogrades (playing the row backward); inversions (playing the row upside-down); and retrograde inversions (playing the row upside-down and backward).
under consideration is chromatic rather than diatonic in its pitch organization;\textsuperscript{5} it would therefore be impossible to decide which of the two adjacent diatonic interval classes a given interval should be classified as.

The plot in Figure 12 looks a little messy compared to the others, but there is still a fairly robust fit to the trend line. It may come as a surprise that this modernistic music should still exhibit a fractal distribution, since its composers were self-consciously attempting to break with past practices. The composers of the Second Viennese School certainly were radical experimentalists, but their iconoclasm centered around atonality and Expressionism—not, apparently, on violating norms for melodic interval distribution.

The foregoing analyses have run the gamut of Western art music from the Middle Ages to the 20th century. In all cases, the diatonic interval classes (or semitone distances) fall into a fractal distribution. The question arises as to whether this result only holds true for art music. To test this hypothesis, the melodic interval content of a collection of over six thousand European folk songs was analyzed (see Figure 13). It is immediately apparent that the data points fit the power-law curve extremely well, revealing that the melodic intervals of European folk music are also fractally distributed.

Since the folk songs in the sample are all of European origin, perhaps fractality in melodic intervals is a feature of Western music only. The analytical results for some

\begin{table}[h]
\centering
\begin{tabular}{|c|c|}
\hline
diatonic interval class & \( f \) \\
\hline
2 & 126104 \\
3 & 39944 \\
4 & 15162 \\
5 & 4781 \\
6 & 3474 \\
7 & 750 \\
\hline
\end{tabular}
\caption{Results for an analysis of 6000+ European folk songs (“Folksongs from the Continent of Europe”).}
\end{table}

\textsuperscript{5} Chromatic music freely makes use of all twelve possible pitch classes, whereas diatonic music mostly uses a selected subset of seven pitch classes.
Eastern music say otherwise (see Figure 14). The sample in this case consisted of 2,242 traditional Chinese songs. Whatever their other differences might be, they do not differ in terms of how their melodic intervals are distributed. An analysis of 375 Native American Indian songs from the Ojibway, Pawnee, and Sioux Nations further supports the conclusion that melodic interval fractality is not just a feature of Western music (see Figure 15).

The cumulative evidence from the analysis of all these different samples is very powerful, indeed. All across eras and styles and cultures, at least one thing remains constant: the melodic interval content of music exhibits a fractal distribution pattern. Why is this phenomenon so widespread? The philosophical answer appears to be that humans, being made in the image of God, imitate God with respect to creating things that have fractal characteristics. Fractals themselves are
an expression of God’s Trinitarian nature.

A technical answer to the question would require a separate study, but a few speculative comments on the matter can be offered here. Perhaps the fractal distribution of intervals facilitates perception of the melody as a single, coherent line. In all the previous analyses, one sees a marked preference for small intervals as opposed to large ones. Indeed, melodies with many back-and-forth leaps tend to be heard as two virtual streams of melody happening at the same time. Another explanation might be that the human vocal range places certain constraints on melodic interval content. As a melody moves high into a singer’s range, large leaps in the same upward direction would be very difficult, whereas small upward steps could still be accomplished. The opposite would be true for melodies as they enter into the low area of a singer’s range. Perhaps the constraint of range also contributes to the preference for smaller intervals.

Whatever the reasons, it is clear that human melodies can now be definitively added to the list of phenomena that exhibit fractal patterning. As fundamental as melody is to music making, there is an even deeper level of fractal reality in music: the level of sound waves themselves.

A naturally occurring tone, such as one produced by a human voice or by a musical instrument, is actually a composite of many pitches. The lowest pitch in the composite, called the fundamental, generally gives the tone its identity (e.g., “F-sharp” or “B-flat”). A natural tone also includes overtones, tones of higher pitch and lower intensity that fuse with the fundamental so that they are not heard as separate pitches. The particular intensities of the various overtones give rise to a distinctive quality called timbre. Listeners use timbre to distinguish one instrument from another.

An artificially constructed composite tone will help to demonstrate the fractal geometry of natural tones. Figure 16 is a visual representation of a sound wave that
combines the note A at 440 Hz (cycles per second) with A at 3,520 Hz, which is 3 octaves higher (audio available online; see “A 440 Hz combined with A 3,520 Hz”). This tone would never occur in nature, but it is constructed in such a way as to give a clear, visual indication of fractal geometry. Adding two waves together creates a single wave that combines characteristics of both. The resulting pattern is a big wave made of little waves. The part resembles the whole and vice versa. One can easily imagine adding another, even higher pitch and zooming in to see that the little waves are made of even littler waves.

In real-world musical sounds, the overtones normally have higher amplitudes and thus are not conveniently “little” like in the artificial example (see Figure 17). This fact obscures, but does not undermine, the fractal geometry of the composite wave. Fortunately, one can use a Fourier analysis to create a sonogram revealing the frequencies of the overtones and then a band-pass filter to isolate individual frequencies (see “A 440 Hz, fundamental and first three overtones” for an online demonstration). A power-law graph for the distribution of frequencies in a recorded piano tone at A 440 Hz drives the point home (see Figure 18). The fit is exact; the correlation is one hundred percent.

Despite what the waveforms shown above might suggest, sound waves are not actually curvy lines. The lines are analogs for pressure waves in the air—that is, compressions and rarefactions of air molecules. Pressure waves transmit energy to the eardrum and cause it to oscillate rapidly in the same pattern as the object producing the tone. Any time people hear a naturally produced tone, their eardrums vibrate in a fractal pattern inside their heads!

It stands to reason, then, that tone-generating mechanisms in musical instruments also vibrate in a fractal pattern. An animation available online (“Model of the

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6 A Fourier analysis, named for the mathematician Joseph Fourier (1768-1830), decomposes a complex waveform into its simple, constituent waveforms. A band-pass filter removes any part of a sound that falls above or below a specified range (or band) of frequencies, and only passes (allows to remain) the part of the sound that falls within the specified frequency band.
fractal vibrations of a clarinet reed”) demonstrates this phenomenon. The speed is greatly slowed and the amplitude greatly exaggerated to aid in perceiving the vibrational patterns. The red line represents a reed vibrating at the fundamental frequency. The yellow line represents the reed vibrating at the frequency of the first overtone. The blue one corresponds to the second overtone. The orange line vibrates both slowly and more rapidly at the same time, combining the motions of the red and yellow lines, which produce the fundamental and first overtone respectively. The black line combines the motions of the red, yellow, and blue lines, or the fundamental, first, and second overtones; it vibrates at three speeds simultaneously. In reality, there are many more overtones than these in a clarinet sound, so the reed vibrates in a complex fractal pattern, indeed! Every instrument gives witness to God’s Trinitarian nature simply by being itself and producing its own distinctive sound.

Fractals exist in the ideal realm of mathematics and also permeate the natural world. They are fundamental to the nature of reality, and they reflect the reiterative Tri-unity of God. Fractal patterns also appear in some human artifacts, including music. People reflect God’s image in their impulse to create and to bring order out of chaos. They also apparently resonate with the fractality of God and the world around them without realizing it.

An appreciation of the deep connections among fractals, the Trinity, and music opens up a new area of exploration in theological aesthetics. People can use the nature of God to deepen their understanding of music while also using music to deepen their understanding of the nature of God.
“A 440 Hz combined with A 3520 Hz.” *YouTube*, uploaded by Joshua Veltman. 31 May 2017, youtu.be/HISzM9vChP0.


---. “Structural Scaling in Bach’s Cello Suite No. 3.” *Fractals*, vol. 15, no. 1, Mar. 2007, pp. 89-95.


Majewski, Adam. “Julia set for \(fc(z)=z^2 + c\) and \(c= -0.75+0.11\).” *Wikimedia Commons*, 26 June 2011, commons.wikimedia.org/wiki/File:Julia_dem.png. Shared under Creative Commons Attribution-ShareAlike 3.0 Unported License (CC BY-SA 3.0), creativecommons.org/licenses/by-sa/3.0/legalcode.


“Mandelbrot Zoom 10^227.” *YouTube*, uploaded by tthsqe12, 15 Apr. 2013, youtu.be/PD2XgQOyCCk.


“Perichoresis.” *YouTube*, uploaded by Joshua Veltman. 29 May 2017, youtube/2izyJ3hqTIM.


Consumer Goods and World War I

Jimmy H. Davis

The year of our Lord 2017 is the centennial of the United States entering World War I by declaring war on Germany on 6 April, 1917. The war would ultimately last from 28 July, 1914, to 11 November, 1918. The word “good” is usually not associated with World War I. During the war, combatants introduced strategic bombing of their enemies’ cities; chemical warfare; unrestricted submarine warfare; trench warfare; and advanced weapons such as airplanes, tanks, and automatic weapons. Due to frontal charges against modern weapons, many battles resulted in over one million military casualties. Blockages of food supplies and a number of genocides led to many civilian deaths as well. At its end, there were over eight million military deaths, about twenty-two million military injuries, and over six million civilian deaths.

<table>
<thead>
<tr>
<th>Allied Powers</th>
<th>Number Mobilized</th>
<th>Military Dead</th>
<th>Military Wounded</th>
<th>Civilian Dead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>12,000,000</td>
<td>1,800,000</td>
<td>4,950,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>France</td>
<td>8,660,000</td>
<td>1,390,000</td>
<td>4,330,000</td>
<td>40,000</td>
</tr>
<tr>
<td>British Empire</td>
<td>8,780,000</td>
<td>900,000</td>
<td>2,090,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Italy</td>
<td>5,900,000</td>
<td>460,000</td>
<td>960,000</td>
<td>unknown</td>
</tr>
<tr>
<td>United States</td>
<td>4,350,000</td>
<td>50,000</td>
<td>230,000</td>
<td>none</td>
</tr>
<tr>
<td>Others</td>
<td>2,320,000</td>
<td>405,000</td>
<td>320,000</td>
<td>1,260,000</td>
</tr>
<tr>
<td>Allied Total</td>
<td>42,010,000</td>
<td>5,005,000</td>
<td>12,880,000</td>
<td>3,301,000</td>
</tr>
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<table>
<thead>
<tr>
<th>Central Powers</th>
<th>Number Mobilized</th>
<th>Military Dead</th>
<th>Military Wounded</th>
<th>Civilian Dead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>13,400,000</td>
<td>2,040,000</td>
<td>5,690,000</td>
<td>700,000</td>
</tr>
<tr>
<td>Austria-Hungary</td>
<td>7,800,000</td>
<td>1,020,000</td>
<td>1,940,000</td>
<td>unknown</td>
</tr>
<tr>
<td>Turkey</td>
<td>1,000,000</td>
<td>240,000</td>
<td>1,270,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1,200,000</td>
<td>80,000</td>
<td>150,000</td>
<td>275,000</td>
</tr>
<tr>
<td>Central Powers Total</td>
<td>23,400,000</td>
<td>3,380,000</td>
<td>9,050,000</td>
<td>2,975,000</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>65,410,000</td>
<td>8,385,000</td>
<td>21,930,000</td>
<td>6,276,000</td>
</tr>
</tbody>
</table>


Political upheavals during and after the war resulted in the establishment of the first communist government as well as the destruction of the German, Russian, Austro-Hungarian, and Ottoman empires. Unresolved issues after World War I would contribute to the start of World War II only twenty-one years later; the total number of casualties in World War II was around sixty million.¹

While World War I is remembered for its violence, fewer people know that many consumer goods owe their success to being introduced in World War I. At the outbreak of World War I, Germany was a great industrial power with few natural resources. For example, Germany had to import nitrates (for fertilizer and explosives), oil, rubber, and many metals. Responding to the German dependence on imports, Britain imposed a naval blockade on German ports. German scientists were called on to find substitutes for fertilizer, coffee, sausage, and other common goods. The German word _ersatz_ means substitute, similar to the American use of the words artificial or synthetic. The following are some ersatz products that we still use today:

- **Fertilizer.** The fertilizer sold at the hardware store is granulated ammonium nitrate. Before World War I, most fertilizer came from one source: the nitrate mines of Chile; whoever controlled these mines controlled the food supply of their enemies. By 1915, German chemists Fritz Haber (1868-1934) and Carl Bosch (1874-1940) succeeded in making ammonia from the nitrogen in the air and then converting this ammonia into ammonium nitrate, which can be used for fertilizer or explosives. In the short term, the Haber-Bosch process prolonged the war, but in the long term, it made food production more efficient.² It is estimated that one half of the nitrogen in our bodies originated in the Haber-Bosh process.³

- **Herbal Tea and Coffee.** Faced with an immediate shortage of tea and coffee, German scientists combined the bloom of the linden tree with beech buds and tips of pine to make an excellent herbal tea. Herbal coffee was made from roasted barley and oats plus chemicals from coal-tar; this ersatz coffee was good with milk and sugar. Since the grains were more valuable as human food stock, a second ersatz coffee was made from acorns and beechnuts with a little barley to impart a coffee flavor. However, acorns and beechnuts were better used as food for pigs, so a third ersatz coffee was made from carrots and yellow turnips.⁴

- **Vegetarian Sausages.** In 1917, Konrad Adenauer, the mayor of Cologne and the first Chancellor of West Germany, became upset that his citizens could not get their beloved sausages. After much experimentation, he selected soy as the meatless ingredient for his _Friedenswurts_ (or peace sausage).⁵

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² Jimmy H. Davis, “How Chemistry and Technology Prolonged World War I”
³ Jonathan Mingle, “A Dangerous Fixation: Synthetic nitrogen was born 100 years ago, it’s why half of us are alive.” Slate last modified March 12, 2013, accessed 17 August, 2017, http://www.slate.com/articles/health_and_science/the_efficient_planet/2013/03/nitrogen_fixation_anniversary_modern_agriculture_needs_to_use_fertilizer.html
We take many other items that were first produced in World War I for granted.6

• **Wristwatch.** A man’s watch of choice before World War I was a pocket watch. The popularity of the wristwatch grew out of the needs of the battlefield—free hands for synchronized artillery barrages and airplane flying.

• **Sanitary Napkins.** The United States’ entry into the war required a supply of surgical dressings. Kimberly-Clark, an American personal care corporation that specialized in paper products, started producing 380-500 feet per minute of a pulp-based product. The Red Cross nurses in Europe discovered that this was a much better product for them than anything they had used previously. After the war, Kimberly-Clark reformulated the material and brought out a new product called Kotex (or cotton texture) in 1920. Since no publications would carry advertisements for Kotex, sales were slow. Finally in 1926, Montgomery Ward, an American mail order retailer, placed Kotex in its catalogue.7

• **Facial Tissues.** While the Kotex sales were lagging, Kimberly-Clark experimented with the material some more. They found that a smooth, soft tissue resulted from ironing the pulp-base. In 1924, they marketed this new product as Kleenex.

• **Daylight Saving Time.** Faced with a blockade that limited fuel supplies, Germany decreed “summer-time” on April 30, 1916, moving the clock forward one hour as a means of saving fuel for lighting.8

• **Radio Communications.** When World War I began, there was no way for airplane pilots to communicate with the ground. Helmets were developed with built-in microphones and earphones, making plane-to-ground communication possible. This technology was instrumental in the development of civilian air travel.9

• **Zipper.** As World War I was developing, the Swedish-American inventor Gideon Sundback (1880-1954) was perfecting the zipper. During the war, the Navy incorporated this design into its uniforms and boots. After the war, civilian clothes began using the zipper.

The outcomes of World War I were similar to Samson’s riddle of the lion and the honey: “Out of the eater came something to eat. And out of the strong came something sweet.”10 Like the lion, human ingenuity has led to much maiming and killing. However, it has also led to the invention of many products that make our lives more comfortable.

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6 Most of this list comes from Evans, “10 Inventions,” unless otherwise noted.
8 See also Benedict, “Ersatz goods”
9 See also Sass, Erik, “12 Technological Advancements of World War I.”
10 Judges 14:14, New American Standard Bible.
The vestry is hereby implementing a new policy restricting the use of the sanctuary to religious activities only, by which we mean to abolish the idea that there is no distinction between the sacred and the secular. (Ridiculous.) Forthwith all thoughts and deeds in space deemed to be holy must conform to the highest standards of purity, by which we mean we cannot allow confession of sin, not even in silence, or pleas for pardon, which suggest unsavory behavior might have been practiced by congregants. (Absurd.) Moreover, prayer requests must be limited to the healing of ailments for which no human blame can be assigned such as rabies, yellow fever, or brain cancer. We do not wish, after all, to give distinguished visitors the wrong impression.

Going forward, all members will be expected to contribute a minimum of one hour each week to beautifying our church, especially making sure all offering plates gleam with an invitation to give and sepulchers are polished to a dazzling white.

A Father’s Thoughts

Lee Benson

On February 27, 2017, my daughter, Mary Elizabeth Benson-Carbonell, eight months pregnant, was diagnosed with a very rare form of lymphoma, which is normally treatable and curable. However, because of the tumor size (the largest of its type UT Medical Center has ever seen), its location (in the chest cavity completely encasing her heart), and the late-stage discovery, her prognosis was dire. After a very difficult journey, in late summer 2017 she was diagnosed cancer free with an extremely promising future. She and her baby are doing fine. My wife and I continue living out of our suitcases as we travel back and forth each weekend to help as she recovers from her treatments. The following are blogs that I wrote during this season of our life.

April 7, 2017 – Lethal Force with Extreme Prejudice

There have been times as a man that I have known myself as lethal—to have the capacity to bring lethal force to bear. It has always been in the role of husband or father. Knowing that you are in some sense a lethal weapon is a primal and dark understanding; it is base and sobering.

I was driving yesterday, returning to Knoxville, when I received word that we had experienced a slight setback. I drove in tears, thinking if cancer were a being, I would bring lethal force with extreme prejudice upon it.

No one and nothing can do that to one of mine. I was left with only my tears. I rode alone and slowly began to back down and to pray. Greater is He that is within me than it that is within her.
July 20, 2017 – A Father’s Thoughts on Failure

Do you remember all of those hopes and dreams you had for your child or the thought that you would take a thousand bullets for her? Do you remember the fury you felt toward anyone or anything that would hurt or scare her? Do you remember when you thought every one of her cells was sacred and anything that hurt one was sacrilege? There comes a time when all of that is for naught.

For me, that time came when my daughter had to go in for a PET scan. As we sat in the clean, pretty waiting room, I felt like an utter failure by not being able to protect her. When the nurse called, “Mary Carbonell,” I reached out to hold my daughter’s hand and prayed silently. She stood, turned and looked back, and in tears quietly said, “Pray for me.”

Utter failure is not something a father handles well. It wasn’t that I hadn’t tried or had tried and failed. I had failed in the sense that there was no power in me that could fight the sickness that was in her. It is one of the surest signs that God exists; only He could set out balm in front of you and say, “I can handle this, too!” He knows what it means to sit and watch helplessly and silently as your child suffers.

You can shake your fist at the heavens and curse a blue streak across the sky and still be left with silent nothing. It is in those times that you desperately seek somewhere to cry in private. Only God, ONLY GOD, can be everything for her—everything you would be if you could. I wouldn’t wish for anyone to go through what Mary and I have, but if you ever experience it, He is the only One to leave your child with—ONLY GOD.
Trappin’ Mama
Walton Padelford

Already the middle of October, summer temperatures were still very much with us. By the time my wife Katy and I had passed through Grenada and eaten at the Orleans Bistro, it was still oppressively hot even into the early evening hours. As we drove to my hometown of Pearl, Mississippi, I kept thinking about the plan my brother Marc and I had agreed upon. It was a scheme, really, and a pretty good one at that. We had come up with a way to transfer my mom from her home to a memory care center not too far away. That decision, however, was far from easy for either of us—and one I knew my mom would not take easily.

My mom, now ninety-five, has dementia. For a good many years, she had been able to live in her own home, thanks to the care that my brother and his wife, Pat, had provided her. Since they lived on the same acreage as my mom, they were able to look in on her regularly—just to check that everything was okay. This arrangement seemed to work well, but we also knew that a day would come when things would have to change. That day came early one autumn morning when she left home and began to wander down Highway 469, because, as she said, “I was going to work.” This clearly would not do. I could not allow my mother to wander down any highway, much less Highway 469, a narrow, winding, and dangerous road. Marc and I had always said we needed a clear sign that Mom could no longer live independently, and now we had it. The time had come.

My brother found a very nice facility for her with walking paths and meals provided. There would be plenty of staff to check on her periodically, assess her needs, and provide appropriate care. All we had to do was transfer some of her furniture, clothes, and other articles from her home to the memory care facility, and do it without provoking a massive yelling match or outright refusal to budge. We hatched a plan.

The Plan

Marc broached the possibility with Mom. The possibility was, shall we say, not well received. Then Pat became the recipient of some rather strong invective about ownership of property and what belonged to whom. This was not a good beginning to the plan. However, we had to continue; Marc had to keep moving in the direction of transferring Mom to the assisted-living, memory-care facility. That’s when he said that Katy and I should come down to Pearl in order to successfully pull
off the transfer. He also said, rightly, that he didn’t want to be the only bad guy in this event. We decided the plan would work like this:

Katy and I would call Mom to tell her that we were coming for a one-day visit and that we would like to take her out for dinner that evening. Then, during dinner, Marc, Pat, and two of their children would go into Mom’s house and load up some furniture and other necessities. Next, they would take everything to the facility and ready the rooms for Mom. It sounded easy enough. But when the actual day arrived, and Katy and I began the long drive to Mississippi, I felt dread, guilt, even despair. We decided to reserve a motel room for that evening because we didn’t feel right about staying in her house—not after kicking out its owner. My brother said he felt like he was participating in a kidnapping.

The Event

Even though the plan for that evening weighed heavily upon me, the oyster po-boys were quite good at the Orleans Bistro. I had written the owner a note once to congratulate her on participating in one of the benefits bestowed upon mankind in Ecclesiastes—namely, enjoying good food. After we left the bistro that day, we continued our journey to Pearl. The closer we got, the tenser we both became. Check-in at the motel went fine, and so we headed out to visit Mom, who welcomed us warmly with hugs. Then, we settled in for some conversation before taking her to supper at the local Cracker Barrel. The scenario was, somehow, too perfect. The plan was in motion—after supper I would betray her into the hands of strangers. I felt like Judas.

The conversation in Mom’s sitting room went on apace. Katy and I both realized at the same time that we were talking to a totally rational person. Mom’s memory was good. She did not miss a beat in conversation. Were we about to make a giant mistake? Katy and I looked at each other, and I began to pray that the Lord would show us something, anything, that would indicate to us the right road to take in this sad situation. God did show us something.

In the midst of some good conversation, Mom paused, and with great seriousness said, “I’ve got to tell you something that will break your heart.”

Katy and I thought that she was going to recount Marc approaching her about moving to assisted living, but that was not the topic at hand. Mom continued, “Your father has taken up with another woman. You never know about some people, particularly when they get old.”

For a moment, Katy and I were stunned into silence. Then, my wife wisely said, “But Loraine, your husband has been dead for two years.”
“Oh, yes,” said Mom. “I guess I must have dreamed that.”

We all laughed, the three of us sitting together in the familiar room, and that’s when I knew taking Mom to the memory care facility was the right move. I put my hand in hers and said, “Let’s go to supper.”

We piled into the car, and I drove us to the Cracker Barrel in Pearl. Even though there weren’t many people in the restaurant at that relatively early hour, inexplicably, the servers were very slow in taking our order. At any other visit the wait would have perturbed me, but this time I was happy about the slow service because it would give Marc and Pat more time to load and unload furniture. As we sat and conversed at the table, I noticed every once in a while that Katy, who had her phone in her lap, would slyly text Pat for updates without Mom knowing it.

Finally, the food arrived. Mom had ordered fish, Katy had a green salad with chicken strips, and I had opted for fried okra and turnip greens with cornbread. I knew that soaking a piece of cornbread in a bowl of turnip greens would provide a wonderful, down-home gastronomic experience. So I began the eating ritual that has sustained Southerners for many generations. I dipped the morsel of cornbread into the potlikker and relished the flavor. I could have given a piece to my mom, but what if the roles had been reversed and my mom had dipped the cornbread into the turnip greens and given a piece to me? Then the picture would have been too perfect. I would have been a veritable type of Judas with Mom as Christ.

As I took my last bite of cornbread, Katy nodded at me. From the look on her face, I knew. Pat had texted that everything was ready at the memory center. Our supper was now finished, and the time of our departure was at hand. In that moment, I panicked. I had no idea how Mom would react to her new abode. It could be very bad. However, at that point, the prayers of the saints sustained us. Many, many people in Jackson were praying for Mom and us.

A half hour later, as we pulled into a parking spot close to the facility’s front entrance, I recalled what the director had told us. She had said that when the time came we shouldn’t say goodbye. “It’s harder on everyone that way. I will help your mother to her new home,” she’d said. I put the car in park, got out, and walked to where my brother and his family were standing. Katy lingered, helping Mom with her seatbelt. With her face wet with tears, Katy gave Mom a present and then joined me. As we stood there, all together, we waited. But somehow our worst fears were not realized as Mom went to her new dwelling without saying a word.
BIOGRAPHIES

Jay Beavers

Jay Beavers earned his B.A. from Grove City College and an M.A. from the University of Richmond before teaching English at the secondary level for seven years. He recently earned his Ph.D. from Baylor University with a dissertation entitled “Flawed Hearts: Prophetic Voices in the Novels of Cormac McCarthy.” His other interests include the postmodern novel, film studies, and literature and theology. His essays have appeared in the South Atlantic Review and Integrite.

Lee Benson

Lee Benson, chair of the art department and art professor, earned a Bachelor of Fine Arts and Master of Fine Arts in Ceramics from the University of Tennessee. He says the art he creates must glorify God without having to be explained, and it should be made simple enough to understand but “complex enough to be labeled art.” Benson, who has been with Union for 18 years, is a sculptor and co-heads Benson Sculpture LLC with his wife. Together, they produce large scale public works. He writes a daily blog called “Art and Faith” in which discusses the intersection between the visual arts and the Bible.

Steve Beverly

Steve Beverly joined Union University in 1993. He currently serves as Associate Professor of Communications Arts. Beverly coordinates the Broadcast Journalism major and serves as the supervisor for the daily, student-produced newscast, Jackson 24-7. In 2010, Beverly received the Tennessee Communication Educator of the Year award. He has been awarded the Newell Award for Innovative Teaching two times. Beverly is the executive producer of Union University basketball television broadcasts. He lives in Jackson with his wife Rebecca. They are members of Aldersgate United Methodist Church where Beverly is the congregational song leader.
**Chris Blair**

Chris Blair serves as Professor of Communication Arts and the Coordinator of the Digital Media Communications and Film Studies majors. Since 2003, he has served on the Board of Directors of the International Digital Media and Arts Association, where he has been the president and chairman of the board of directors of the organization. Blair has presented at numerous conferences on media issues and trends, and his work has been published in the *International Digital Media and Arts Association Journal* and *Renewing Minds*.

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**Jimmy H. Davis**

Jimmy H. Davis serves as the Hammons Professor of Chemistry. He earned his B.S. from Union University and his Ph.D. from University of Illinois. He has acquired additional studies at University of Florida, Oak Ridge Associated Universities, Argonne National Laboratory, Harvard University, and Oxford University (England). He has co-authored four books, *Science and Faith* (2000), *Designer Universe* (2002), *Chance or Dance* (2008), and *God and the Cosmos* (2012). His research interests include the chemistry and kinetics of seven-coordinated transition metals.

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**Patricia L. Hamilton**

Patricia Hamilton earned her Ph.D. from the University of Georgia. Her teaching specialties include Restoration and 18th-century British literature, contemporary American ethnic writers, advanced composition, and creative writing. She has twice won Union’s Newell Innovative Teaching Award. In 2015, she won the Rash Award in Poetry and has received two Pushcart nominations for poetry. Her first collection, *The Distance to Nightfall*, was published in 2014. Her critical publications include articles on Amy Tan, LeAnne Howe, Bathsua Makin, Daniel Defoe, and Frances Burney. Currently, she is working on a book exploring Protestantism in the novels of mid-eighteenth-century writer Charlotte Lennox.
Beth Madison

Beth Madison has served the Union Continuing Studies and Biology Departments for 15 years. She has taught at the college level for 22 years at five different universities. At Union, she teaches Biology 100, Physics 111, and various special topics courses in the sciences. Her favorite activities include reading, walking in the woods or on the beach, cooking, and spending time with family.

Joy Moore

Joy Moore received her B.A. in English Literature and Creative Writing at the University of Arkansas and earned her M.F.A. at Pacific University. Her poems have appeared in *Prairie Schooner*, where she won a Glenna Luschei award, *The South Carolina Review*, and *Hunger Mountain*, among others, and she has been nominated for a Pushcart Prize. In addition to teaching courses in composition and creative writing, she manages Union’s local coffee shops, coffee roastery, and music venue.

Walton Padelford

Walton Padelford was a Porter Professor of Economics at Union from 1980 until retirement in May, 2017. He earned his Ph.D. in Economics from Louisiana State University in 1975 and has published various articles in business ethics and one book, *Dietrich Bonhoeffer and Business Ethics*. He has also published three Christian pamphlets, *That They Should Believe*, *The Mystery of Christ*, and *A Body Thou Hast Prepared for Me*. Dr. Padelford has also served as a board member with Indigenous Outreach International and as an Elder at Christ Community Church in Jackson.
**Roger Stanley**

Roger Stanley teaches American literature and creative writing, with specialties in 20th century Southern prose and creative nonfiction respectively. A 2007 recipient of a National Endowment for the Humanities Institute grant to study Flannery O’Connor in her native Georgia, he is a peer evaluator for the *Flannery O’Connor Review*, vetting submissions regularly. He has published on O’Connor in *JUFF, Literature and Belief*, and elsewhere. Chapters of his manuscript-in-progress about the singer/songwriter Lucinda Williams have appeared in the journals *Popular I* and *Measure*. Stanley currently serves as head of the task team which will host the Southeast Regional Conference on Christianity and Literature on the Union University campus in spring 2018.

**Joshua Veltman**

Joshua Veltman received a B.A. in Music from Calvin College and an M.A. and Ph.D. in Musicology from Ohio State University. He arrived at Union University in 2004 and teaches classes in music history, theory, and technology as well as art appreciation. From 2013 to 2015, Dr. Veltman served as co-chair of the Faculty Community for Significant Learning, and he frequently presents at faculty workshops on teaching practice. His research interests include theological aesthetics, sacred music of the Renaissance, and music cognition. He is active in the Jackson area as a clarinetist and handbell player, and he serves as the conductor of the community-based Jackson Symphonic Winds.