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# The Hilltop Review

A Journal of Western Michigan Graduate Student Research

Volume 12

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Fall 2019



**The Hilltop Review: A Journal of Western Michigan University Graduate Student Research**

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“Emerging Dots” by Elizabeth V. Netcher

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## Notes from the Editor

Dear readers,

It is my pleasure to present to you the Fall 2019 issue of *The Hilltop Review*. This journal is meant to reflect the mission of the GSA as a body striving to be a unified interdisciplinary group of graduate students, as well as showcase some of the very best articles, creative writing, and artwork that students at Western Michigan University are capable of. I am happy to say that this issue is no exception and I am proud of the work presented in the first issue I have published as editor and director. I am also very excited to announce the winners of the various awards that are offered to our writers. Sydney N. Sheltz-Kempf will receive \$500 for the paper “Strategies to Restore Hearing;” Claire Herhold will receive \$250 for the paper “A Village Comes to Life: The Interpretation of Henry Ford’s Greenfield Village;” and K.L. Schultz will receive \$150 for the paper “Wildlife Emotions: Animal Rights as Examined Through a Cognitivist Lens.” For creative work Elizabeth V. Netcher will receive \$250 for the painting “Emerging Dots” and Mark C. Joslin will receive \$250 for the short story “The Work of the World.”

To some, the idea of an interdisciplinary academic journal is a curious thing. As graduate students we are often so engrossed in our specialized areas of study, that we do not have time to acknowledge and appreciate the academic work done in other fields. But this is precisely why a journal like *The Hilltop Review* is so valuable. Interdisciplinary journals at their best remind us of the unity of the intellectual pursuit. Although as academics our aims are expressed in extraordinarily different ways, we all enter the rigors of graduate school because we are united in the hope to know more and share our knowledge with others. This camaraderie is the glue that holds the Graduate Student Association together and gives power to us as Western Michigan University graduate students.

I have learned a lot in my first semester as acting editor and director of this journal, and there are many people I have to thank. First, I would like to thank the president of the GSA, Craig Morris, for his unwavering support as head of the executive board and his willingness to help with the journal whenever there is a need. I am also incredibly grateful for the help offered by editorial board member and copy editor of this issue, C.J. Oswald, who never fails to impress with his eye for detail and the rigor of his work. A special acknowledgement must be given to the former editor and director of this journal, Adam Waggoner, who not only proved invaluable in helping with my transition into this position, but also proved invaluable as a friend. Finally, I am thankful to the 2019-2020 Graduate Student Association executive board for their continued support of *The Hilltop Review* and its mission.

Sincerely,

Alexander Lothar Hoffmann

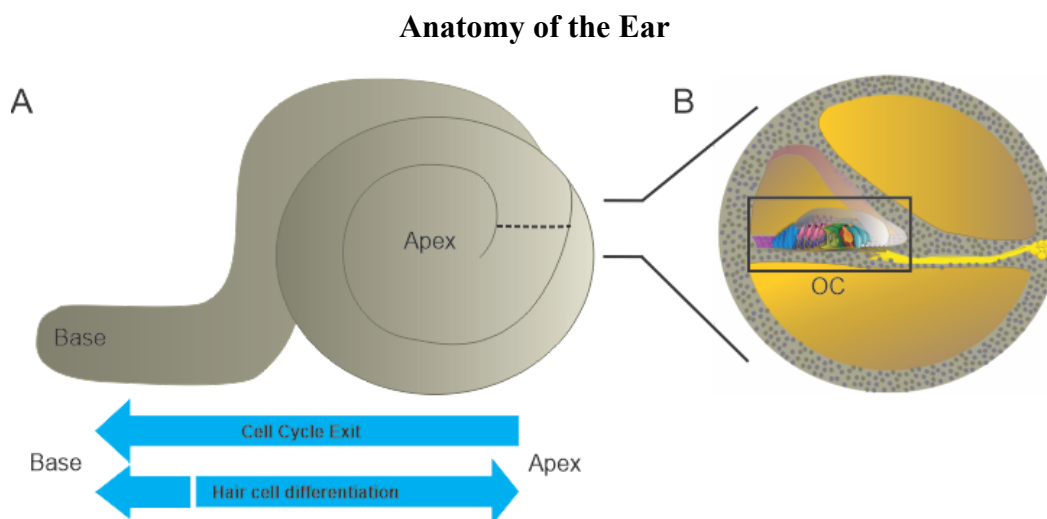
# Strategies to Restore Hearing

*By Sydney N. Sheltz-Kempf*

**Abstract:** We discuss strategies within the field to restore hearing in the context of a flat epithelia model. This could assist in avoiding the limitations of current treatment options along with the obstacles associated with cellular restoration attempts. A review of the important genes required for the development, differentiation, and long-term maintenance of the organ of Corti (OC) demonstrates that any future direction to regenerate hair cells necessitates a better understanding of the gene expression in addition to the cells present during the phalangeal scarring process and the flat epithelia environment. This understanding could be achieved through the development of a characterized flat epithelia, followed by complete regeneration of various sensory cell types in the correct location that respond appropriately to noise stimuli. Of course, this strategy would have to be modified for the different types and cellular manifestations of hearing loss. The characterization of the flat epithelia model and the context of the genes can be further manipulated for precise regeneration of a functional OC based on the cellular environment within the specific patient's cochlea.

## Background

Neurosensory hearing loss is one of the most prevalent sensory disorders, with over 5% of the world's population living with disabling hearing loss [40, 45]. In the United States alone, one in eight people over the age of 12 experience hearing loss in both ears [35], and by age 60, approximately one-third of the population has difficulty hearing [40]. Additionally, hearing loss at birth, known as congenital hearing loss, is one of the most common chronic disorders in children [27]. The hearing loss in these pediatric patients is due to genetic factors. However, other causes of hearing loss include noise-induced hearing loss, ototoxic drugs, and other environmental insults. In many cases of hearing loss, the mechanosensory cells of the inner ear responsible for transforming sound waves into electrical impulses are lost. The remaining tissue is characterized by the 'flat epithelia' leftover when these sensory cells have died [20, 21, 50, 56, 57]. This review will discuss leading strategies in the field to restore hearing, including the limitations of the current treatment options. We will also discuss previous attempts at cellular restoration within the inner ear, and the generation of genetic tools in a mouse model that could be vital to design novel treatment options for patients.



**Figure 1 Cochlear Cross-Section:** (A) A cartoon representation of the basal-to-apical organization of the cochlea. Cell cycle exit occurs from apex to base, while hair cell differentiation begins into the mid-basal region and progresses outwardly in both directions. (B) Cross-section of cochlea depicting OC within the cochlear duct, in reference to scala vestibule and scala tympani.

The inner ear is split into two regions: the vestibular region and the cochlea. While the vestibular system provides a sense of balance, the cochlea is responsible for the sense of hearing as a result of a highly organized arrangement of specific cell types. These cell types can be split into three different categories:

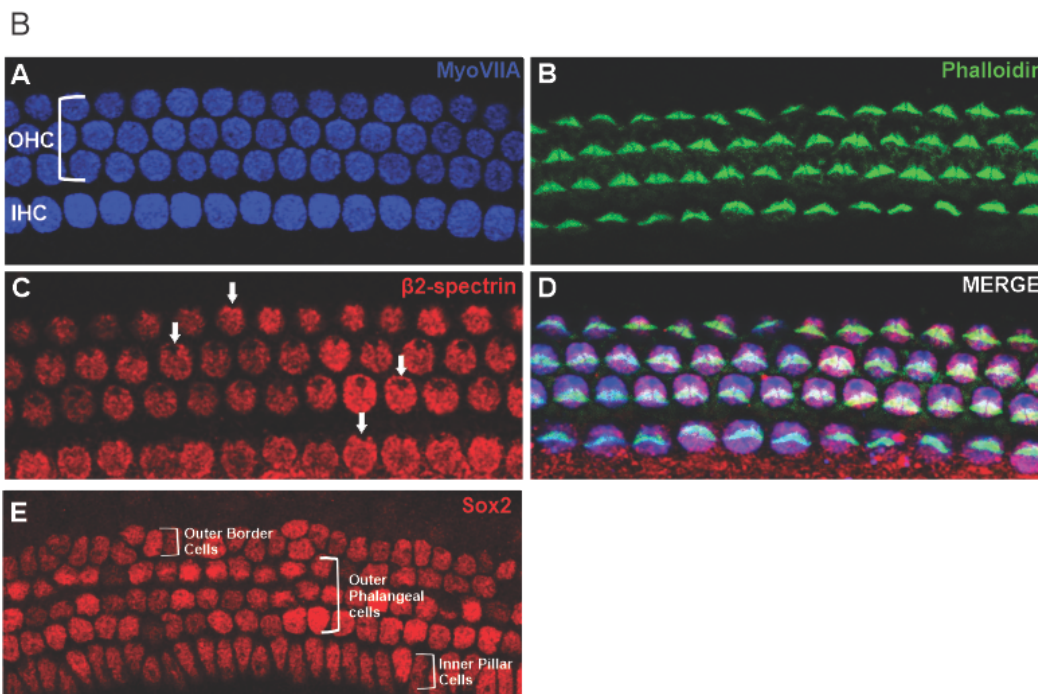
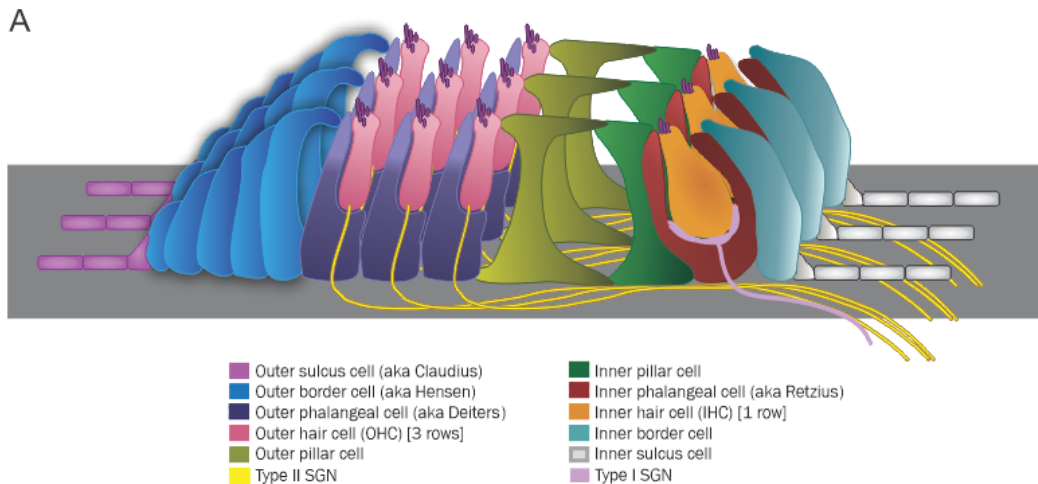


the mechanosensory cells responsible for hearing, the supporting cells that help maintain these mechanosensory cells, and the spiral ganglion neurons (SGNs) that transmit the electrical signal produced by the mechanosensory cells to the hindbrain [11, 12, 13, 22, 56]. These mechanosensory cells are called hair cells. While these cells are not like the hair found on top of one's head, they do have small tufts of stereocilia on their apical surface that resemble small hairs.

The hair cells and the supporting cells run the entire length of the cochlea in a region called the organ of Corti (OC) (Figure 1). The cochlea is a long, coiled tube with two ends: the apex and the base. During development, the OC is formed as a result of two opposing gradients of gene expression within the cochlea. In mice, around embryonic day 12 (E12), the cells that will eventually become the hair cells and supporting cells, collectively called prosensory cells, exit the cell cycle in the apex of the cochlea. These prosensory cells will continue to progressively exit the cell cycle towards the base until around E14. At E13.5, hair cells start to differentiate within the mid-base, which spreads to the apex and the far basal region over the next 3-4 days [14, 19, 30, 60].

In addition to these developmental gradients, an important distinction between the basal and apical sections of the cochlea is that the hair cells in these regions respond to different frequencies of sound. The cochlear base responds best to high-frequency waves, while the cochlear apex optimally responds to low-frequency waves [19, 60]. The SGNs that synapse onto hair cells in the base, mid-base, and apex help establish a tonotopic map in the hindbrain that directly corresponds to this gradient of frequencies [21, 22, 38, 71]. In cases of age-related hearing loss, most people first lose their sense of hearing in the region of higher frequencies before the hearing loss eventually progresses to the lower frequencies [28]. As such, the main function of hair cells is to respond to the physical movement of the stereocilia on their surface in order to release neurotransmitters to SGNs for sound transduction.

There are four rows of hair cells in the OC: one row of inner hair cells and three rows of outer hair cells (Figure 2).



(continued) **Figure 2 Cell Types in OC:** (A) Drawing depicting cell types in the OC. The GER contains inner sulcus cells (grey), and the LER contains the outer sulcus cells (magenta). The GER is separate from the OC by inner border cells (pale blue) while the LER is separate the OC by outer border cells (turquoise). A single row of IHC (orange) lies closest to the GER, while three rows of OHC (pink) lay closest to the LER. Type I SGN (lilac) synapse onto IHC supported by inner phalangeal cells (red) and Type II SGN (yellow) synapse onto OHC supported by outer phalangeal cells (purple). The tunnel of Corti is formed by inner pillar cells (dark green) and outer pillar cells (yellow-green). (B) IHC of OC cell types. MyosinVIIA (blue) stains hair cells, and Phalloidin (green) stains stereocilia. Beta2-spectrin (red, C) marks HC polarity, while *Sox2* (red, E) stains supporting cells. The merged panel in D visualizes normal hair cell polarity.

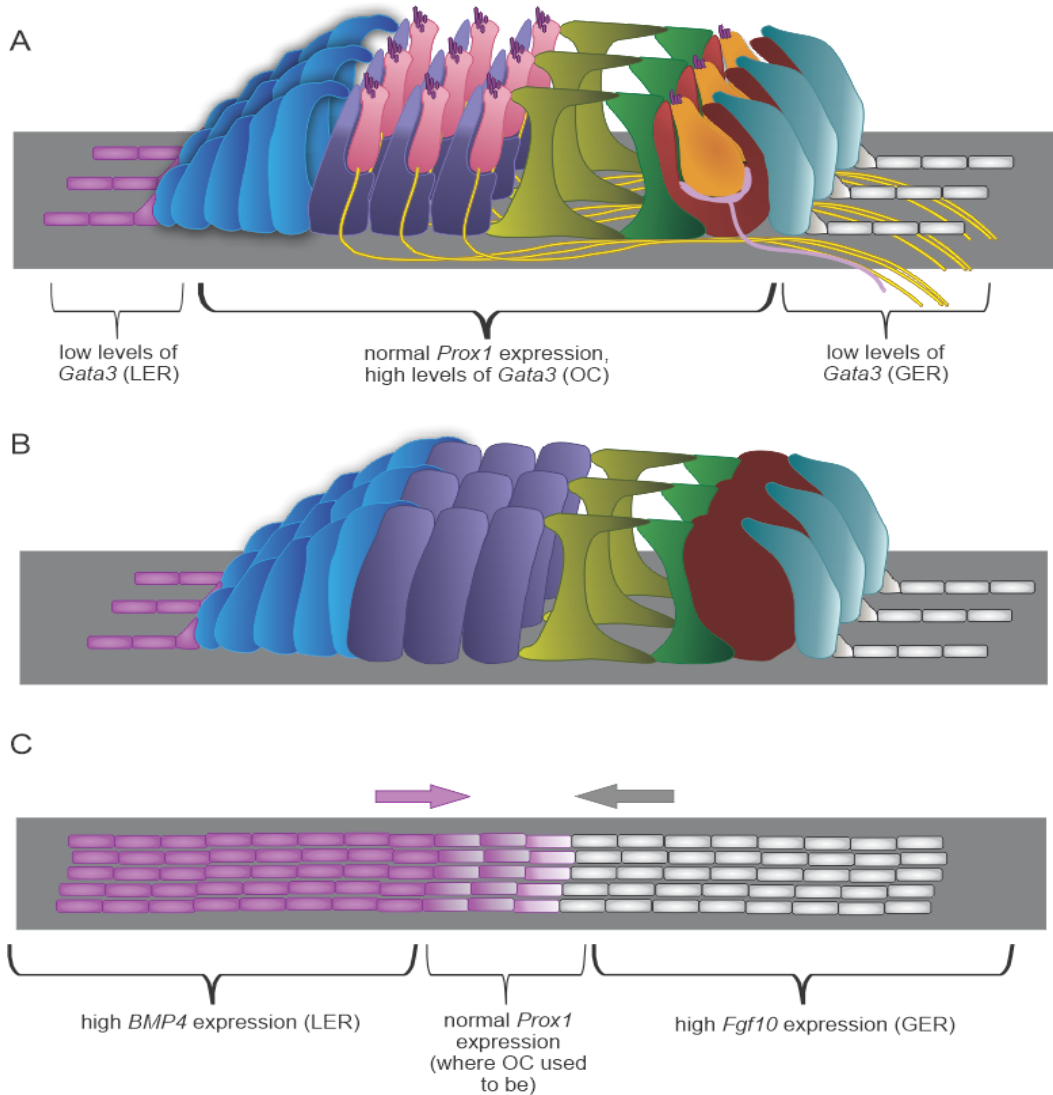
The two types of hair cells are connected to two categories of SGNs, Type I SGNs and Type II SGNs, in order to serve two specific functions. Inner hair cells are connected to the Type I SGNs and are responsible for the transduction of sound information that will be consciously perceived, while the Type II SGNs synapse on the outer hair cells and are involved in a modulatory feedback loop [21, 22,

38]. Regardless of their function, both hair cell types are braced by five different types of supporting cells: inner and outer pillar cells, inner and outer phalangeal cells, and border cells. The inner and outer pillar cells delineate respectively the inner and outer hair cells and form a cavity within the OC, called the tunnel of Corti, filled with a sodium-rich and potassium-poor extracellular fluid known as perilymph [19, 73]. Perilymph is different from the potassium-rich and sodium-poor extracellular fluid that comes into direct contact with the stereocilia of the hair cell, which is known as endolymph. The ion composition of endolymph is so unique that it is not found elsewhere in the body, while the ion composition of perilymph is very similar to other extracellular fluids [73]. The strict segregation of these two fluids between the stereocilia and the body of both hair cell types is important for establishing the sensitive ion gradient required for both types of SGNs to fire electrical signals to the hindbrain. The bodies of inner hair cells come into contact with the perilymph because they are supported within the inner phalangeal cells. Likewise, the bodies of outer hair cells sit within the outer phalangeal cells. However, the stereocilia on the apical surface of both hair cell types come into contact with endolymph [19, 73].

The OC is sandwiched between two nonsensory regions called the greater epithelial ridge (GER) and the lesser epithelial ridge (LER). The inner and outer border cells delineate the sensory cells in the OC from the nonsensory GER and LER, respectively. The GER contains inner sulcus cells, while the LER contains the outer sulcus cells. As the name suggests, the single row of inner hair cells (IHCs) lies closest to the GER, while the three rows of outer hair cells (OHCs) lay closest to the LER. Together, the hair cells and supporting cells comprise the sensory region and are grouped as sensory cells, while the cells within the GER and LER are considered non-sensory (Figure 2).

The specific organization of the cells within the OC can be further visualized by immunohistochemistry for cell-specific proteins (Figure 2). The single row of IHCs and the three rows of OHCs can be seen via the Myosin VIIA antibody, which only labels hair cells. The actin stain Phalloidin binds to the stereocilia on the top of the hair cells. The merged image demonstrates how the hair cells are organized by type and stereocilia arrangement. Furthermore, the *Sox2* antibody will bind to all supporting cells underneath the hair cells in order to visualize the bottom supporting layer of the OC. Together, these immunohistochemistry images establish a complete picture of the sensory cell types in the OC.

### **Histological Effects During Hearing Loss**



**Figure 3: Flat Epithelia via Phalangeal Scarring** (A) Cartoon depiction of normal cell types in OC. (B) Phalangeal scarring occurs when the hair cells die and the inner and outer phalangeal cells expand to fill the gap. (C) Between a few days to a few months, the rest of the sensory cells die after phalangeal scarring. They are replaced by the inner and outer sulcus cells in the GER and LER joining together to fill the gap.

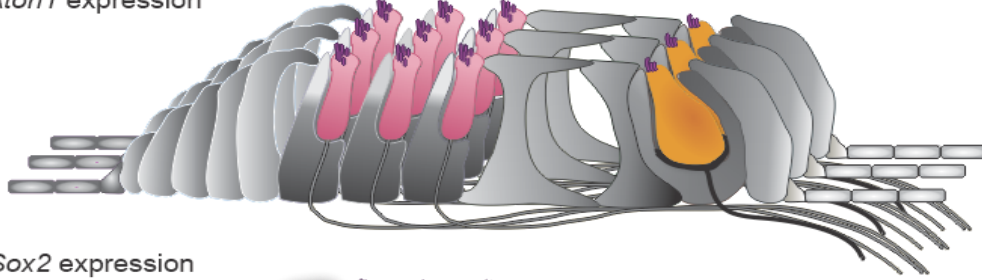
Complete hearing loss is characterized by the presence of a flat epithelia absent of all sensory cells (Figure 3). After the sensory hair cells die, the inner and outer phalangeal cells expand to replace them. This process is called phalangeal scarring [21, 56, 57]. After phalangeal scar formation, all the sensory supporting cells are replaced by a flat environment caused when the GER and LER come together to fill this gap. The name ‘flat epithelia’ is inspired by the cellular morphology of the flat inner and outer sulcus cells from these regions joining together. Previous studies have shown that the process of creating a flat epithelium can range from a few days to several months [26, 57, 70]. This cellular

environment has not been well-characterized, but it could be pivotal in hearing restoration studies since it is the phenotype seen in many hearing loss patients [14, 20, 21, 56, 57, 70]. Gene expression is strictly maintained in the GER and LER and can be visualized via *in situ* hybridization for the genes *Fgf10* and *Bmp4*, respectively (Figure 3) [34, 52]. Previous studies have attempted to regenerate hair cells by converting supporting cells or nearby non-sensory GER cells into hair cells through the ectopic expression of genes known to be important for hair cell formation [1, 5, 24, 36, 42]. However, as shown in Figure 3, there are no differentiated supporting cell types within the flat epithelia, and because of this, these approaches would not easily translate into an effective treatment option for hearing loss.

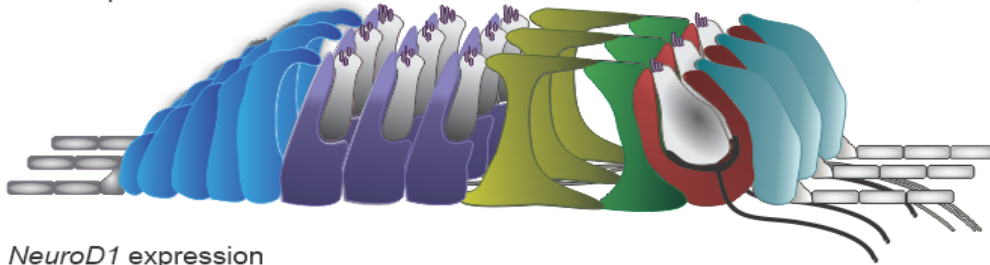
Aside from gene therapy, an alternative approach to treat hearing loss is the injection of cells into the inner ear with the expectation that they would survive and proliferate into sensory cells after the addition of prosensory factors. The field of regenerative medicine has a history of using stem cells in order to regenerate tissues, but the cochlea poses a unique problem due to the extracellular fluid that comes into contact with the OC. First, the endolymph creates a toxic environment for any non-native cell types due to the high potassium concentration. Second, there is no stem cell niche in the inner ear. As a result, previous studies have shown that human embryonic stem cells did not survive more than one day post-injection into the inner ear [32, 46]. Other studies attempted to inject HeLa cells into the ear due to their more robust nature and potential to survive in this hostile cellular environment. While these cells survived up to a week post-injection, these studies were also unsuccessful [31, 32, 50]. Another study attempted to inject neural stem cells into the cochlea with the intention to generate functional SGNs. A small number of cells were generated that resembled satellite cells and Type I SGNs, but these were not maintained long-term [51]. These studies reiterated the specificity of the toxic micro-environment of the cochlea to non-native cells but also demonstrated that the cochlea might provide signals for the differentiation of the various cell types. Due to this unique problem, current approaches in the field to treat hearing loss predominantly focus on gene therapy and the manipulation of cell types in the cochlea.

## Gene Expression

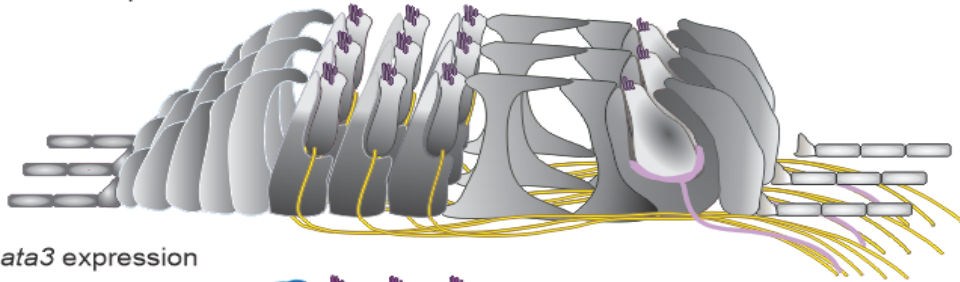
A - *Atoh1* expression



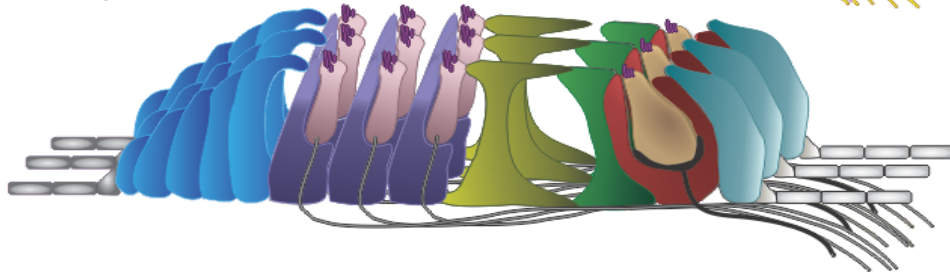
B - *Sox2* expression



C - *NeuroD1* expression



D - *Gata3* expression



**Figure 4 Gene Expression within Specific Cell Types in OC:** continued on next page

A novel approach to treat hearing loss is the use of gene therapy in order to generate functional hair cells. Studying the development of the cochlea in a mouse model allows for the identification of genes necessary to generate hair cells normally. This is especially important due to the lack of a stem cell niche to study in the inner ear. Therefore, genes discovered in these studies can be manipulated in order to generate new hair cells in hearing loss models. Previous studies have identified several transcription factors that influence the development of different cell types in the OC. *Atoh1*, a basic helix-loop-helix (bHLH) transcription factor,

is found to be necessary for the differentiation of both inner and outer hair cells (Figure 4) [5, 6, 75]. Due to its essential role within hair cells, *Atoh1* has been the primary gene of interest for several studies attempting to regenerate hair cells [5, 6, 24, 36, 47, 48, 75]. Furthermore, *Atoh1* lends itself to manipulation because it has two different enhancers and auto-regulates its own expression by binding to one of its own enhancers [47, 48]. Another important transcription factor called *Sox2* is expressed in all the supporting cell types discussed in Figure 2, including the inner and outer border cells, phalangeal cells, and pillar cells. It has also been shown that the SOX2 protein acts in a physical complex with EYA1 and SIX1 in order to regulate ATOH1 expression in the hair cells by physically binding to the second *Atoh1* enhancer [1, 12, 55]. This suggests that *Atoh1* and *Sox2* may work together in order to create the specific organization of hair cells and supporting cells. However, it is not that simple. Other studies have demonstrated that Delta-Notch signaling regulates expression of *Hes/Hey* genes that may also play a role in determining the specific patterning between hair cells and supporting cells [4, 8, 42, 53].

In addition, previous studies have shown that there are other transcription factors required for long-term maintenance of sensory cell types. For example, the zinc-finger transcription factor called *Gata3* is particularly interesting due to the variance in its expression throughout both embryonic and postnatal development [9, 10, 23, 34]. *Gata3* is highly expressed alongside *Sox2* in the supporting cells, but both types of hair cells have low residual levels of *Gata3* expression at postnatal day 0 (P0) [34, 75]. While *Gata3* is originally expressed in both the GER and LER in early embryonic development, it is important to note that *Gata3* is not expressed in these regions at P0. Because *Gata3* is expressed in multiple cell types at the early stages of development, but is highly restricted later on, it has been suggested that *Gata3* may be modifying the expression of other transcription factors for the long-term survival of sensory cell types [21].

As previously mentioned, without SGN presents, these cell types will not be functional. *NeuroD1*, a bHLH transcription factor in the same family as *Atoh1*, is specifically expressed in the SGNs that synapse onto these hair cells [21, 22,

**(continued) Figure 4 Gene Expression within Specific Cell Types in OC at P0** (A) *Atoh1* is expressed in both inner and outer hair cells (B) *Sox2* is expressed in all supporting cell types (C) *NeuroD1* is only expressed in SGN and (D) *Gata3* is highly expressed in supporting cells but expressed in hair cells in lower levels. *Neurogl* is not shown because it is expressed in the proneurosensory domain and not in these cell types at P0.

38, 49]. It is vital to note that bHLH transcription factors often form complex regulatory networks in sensory systems, which is especially true in the ear [66]. Since *NeuroD1* represses *Atoh1* expression within SGNs, there is a negative feedback loop between these two transcription factors in the ear [49]. It has been suggested that the expression of *NeuroD1* and the subsequent downregulation of *Atoh1* is key in determining which prosensory cells will become SGNs instead of hair cells, or vice versa [11, 13, 43]. Expression of *Atoh1* is still required for proneurosensory cells to develop [5]. Another bHLH transcription factor,



*Neurog1*, has a strong regulatory role and also seems to play an overlapping role with *Atoh1* in the ear. Early in development, at E 9.5, the prosensory progenitor cells that will eventually become SGNs express *Neurog1*, and previous studies have reported that *Neurog1* expression increases the progenitor population and cell expansion [37, 67, 71]. Interestingly, in the absence of *Atoh1* or *Neurog1* expression, no hair cells or SGNs form [5, 37]. It has also been shown that the replacement of one *Atoh1* gene with the *Neurog1* gene will partially rescue this phenotype, implying that these two transcription factors play a similar role even if they are not a complete substitute for each other. While *Neurog1* has a regulatory role in order to increase the proneurosensory progenitor cells, it also acts in a network with *NeuroD1* and *Atoh1* in order to influence which cells ultimately become SGNs or hair cells. In conclusion, hair cell formation requires a network of several transcription factors throughout development combined with different gene expression gradients that are eventually restricted to certain cell types.

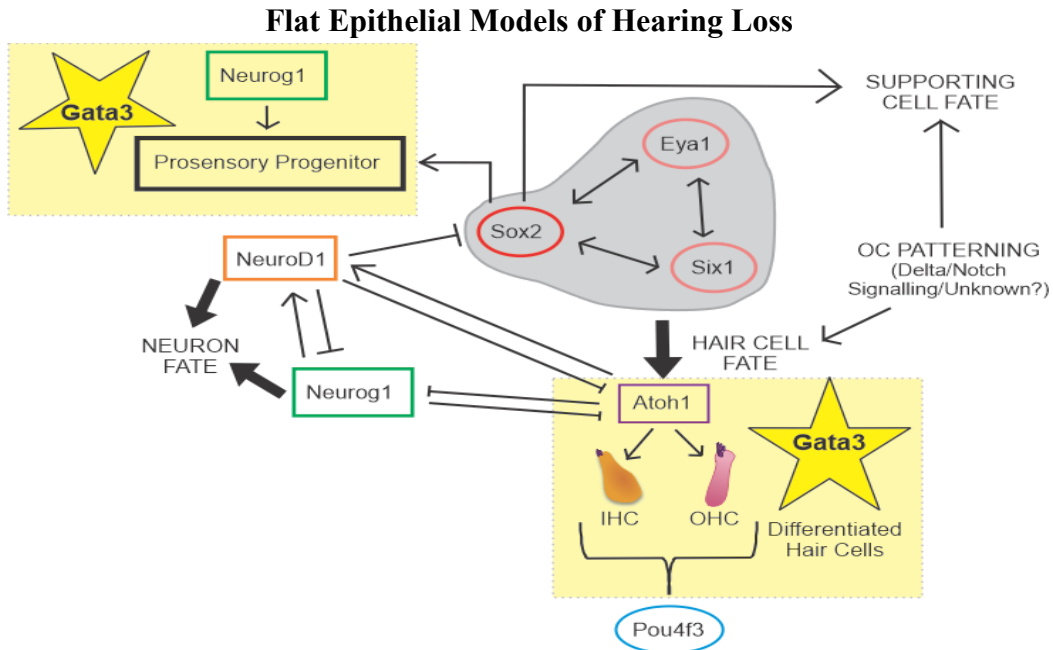
### **Current Treatment Options**

There are typically only two types of treatment available to patients who suffer from hearing loss: cochlear implants and hearing aids. Cochlear implants do not rely on the hair cells, but rather directly stimulate the SGNs that relay sound information from the ear to the hindbrain. These SGNs make up part of cranial nerve VIII [78]. In order to work, cochlear implants require at least some functional SGNs [72]. Interestingly, it has been shown in previous studies that SGNs require support from the hair for survival [3, 29, 69, 71]. As a result, SGNs may be lost long-term in patients with cochlear implants, rendering this treatment a temporary one. Another practical limitation of cochlear implants includes the lack of perception of music. While patients with cochlear implants can comprehend speech and detect simple rhythms under normal hearing conditions, this technology does not appropriately account for the perception of pitch, timbre, or melody recognition [41]. Most patients who utilize cochlear implants report that they no longer find the sound of music as enjoyable or maintain their personal genre preference [41].

In contrast to cochlear implants, hearing aids amplify the sound to assist with partial hearing loss, but they still require at least a small population of functional hair cells in addition to SGNs in order for sound to be relayed to the brain and interpreted [18, 33, 40] While this treatment option does allow patients to listen to music, the use of hearing aids carries a heavy social stigma along with limitations in noisy environments. This prevents most people who need hearing aids from actually using them. Previous studies have reported that almost 80% of people aged 54-70 who need hearing aids intentionally choose not to use them [40]. Further investigations have shown that these patients attribute external societal pressures in the media, self-perceived judgment, and struggles with ageism and vanity as reasons for declining this treatment option [74]. The problem of hearing loss and lack of effective treatments is further compounded by the increase in average lifespan and continued rapid growth in the aging



population[14, 44]. Therefore, the regeneration of sensory hair cells would be preferable to the currently available treatment options.



**Figure 5 Transcription Factor Network in Inner Ear Development and Differentiation**  
 Prosensory progenitors can be pushed towards a neuronal or hair cell fate based on the expression of different transcription factors. Expression of *NeuroD1* and *Neurog1* will trigger neuronal fate, while *Atoh1* expression is driven by the SOX2/EYA1/SIX1 complex for a hair cell fate. Patterning between hair cell and supporting cells is determined by Delta/Notch signaling pathways, and possibly other factors. The yellow boxes and stars indicate possible roles for *Gata3* in either early development in combination with *Neurog1*, or with long-term maintenance and survival that cooperates with the expression of *Pou4f3* in mature hair cells.

Based on previous studies and other attempts to restore hearing, gene manipulation within the flat epithelia seems to have the most potential for the successful regeneration of hair cells. All types of hearing loss are characterized by the loss of sensory cells, which results in a flat epithelium. However, in order to perform experiments within a flat epithelia model, the model itself must be characterized. There are two methods to create a flat epithelium: 1) the *Pou4f3-DTR* genetic mouse line and 2) antibiotic exposure. Uniquely, mice are immune to diphtheria because their cells do not have the receptor on the plasma membrane for the diphtheria toxin (DTX). *Pou4f3* is a gene that is expressed early in hair cell development (Figure 5). In this genetic model, the cells that express *Pou4f3* will also express the human receptor for the diphtheria toxin. After injection with DTX, only the hair cells will die because only these cells within the inner ear express the receptor [16, 62]. Using this technique to target the hair cells specifically is similar to the method in the paper that first reported phalangeal scarring [26, 50, 56, 57, 62]. The supporting cells are unharmed but are destroyed as the enlarged phalangeal scars are replaced by the inner and outer sulcus cells of the GER and LER, respectively. Characterization of the gene expression and cell

types in the flat epithelia will be possible since this model is easily repeated with a single DTX injection. However, another option to create the flat epithelia is to inject with antibiotics that have been shown to have ototoxic properties. For example, gentamicin and neomycin are commonly-prescribed antibiotics, but both have been shown to kill hair cells and sensory cells in the cochlea after high doses or prolonged use [17, 58, 64, 76, 77]. Additionally, commonly-prescribed chemotherapeutic drugs like cisplatin have also demonstrated ototoxicity at high levels and after long-term use [61, 65]. The advantage of the diphtheria injection model is that it should affect all the hair cells of the OC, while the model created through antibiotics can be patchy in the OC or have different effects that change along the length of the cochlea.

Once the field has a more complete understanding of the flat epithelia, gene manipulation in this environment will be the next step in order to regenerate a functional OC. One gene that may be important in altering the flat epithelia of hearing loss patients is *Gata3* (Figure 5). As previously described, *Gata3* is widely expressed throughout the early development of the ear, but it becomes restricted at P0 and later ages [9, 10]. It is known that differential levels of transcription factors determine the level of their function, which raises another interesting question: why does *Gata3* have varying levels of expression throughout the ear? The implication is that *Gata3* either has several different roles throughout development or that *Gata3* plays a specific role that is restricted to certain prosensory regions as the cells within the ear differentiate. One way to tease these questions apart is to determine the effects of *Gata3* within the flat epithelia. It has been previously shown that there is a constant low level of *Gata3* expression in cells that border the OC within the GER and LER, which would be present in a flat epithelia disease model created from either the DTR approach or the antibiotic method [57]. Furthermore, *Gata3* has been shown to be necessary for the proper function of ATOH1, both initially and long-term [10, 75]. Regarding the second method, it has been previously suggested that overexpression of *Gata3* may have a protective function against antibiotic ototoxicity because of its role in long-term maintenance of ectopic and regenerated hair cells. Regardless of the method, the field will benefit from the complete characterization of the flat epithelia model, with and without phalangeal scarring. Furthermore, a more complete understanding of the role of *Gata3* in the development and long-term maintenance of sensory cell types in the OC can direct studies for other novel treatments.

## Conclusion

This paper discussed strategies within the field to restore hearing in the context of a flat epithelia model that could alleviate the limitations of current treatment options and avoid the obstacles associated with cellular restoration attempts. A review of important genes required for the development, differentiation, and long-term maintenance of the OC demonstrates that any future direction to regenerate hair cells necessitates a better understanding of the gene

expression as a whole. Specifically, regeneration of hair cells requires a more complete understanding of the genes and cells present during the phalangeal scarring process and within the resulting flat epithelia environment. As previously suggested, this understanding could be achieved through the development of a characterized flat epithelia, followed by complete regeneration of various sensory cell types in the correct location that respond appropriately to noise stimuli [21]. Future directions will likely focus on the manipulation of genes that influence hair cell development, for example, *Gata3*, within this flat environment. This knowledge will assist in the design of treatments for hearing loss that does not require certain cell types, like cochlear implants or hearing aids. Furthermore, these novel treatment options can target the flat epithelia remaining in all types of hearing loss.

## Bibliography

1. Ahmed, M., Wong, E. Y., Sun, J., Xu, J., Wang, F. and Xu, X. (2012). Eya1-Six1 interaction is sufficient to induce hair cell fate in the cochlea by activating *Atoh1* expression in cooperation with *Sox2*. *Dev Cell.* **2**, 377-390.
2. Ahmed, R. M., Hannigan, I. P., MacDougall, H. G., Chan, R. C. and Halmagyi, G. M. (2012). Gentamicin ototoxicity: a 23-year selected case series of 103 patients. *Med. J Aust.* **701**, 701-704.
3. Barclay, M., Ryan, A. F. and Housley, G. D. (2011). Type I vs. type II spiral ganglion neurons exhibit differential survival and neuritogenesis during cochlear development. *Neural Dev.* **6**, 33.
4. Benito-Gonzalez, A. and Doetzlhofer, A. (2014). Hey1 and hey2 control the spatial and temporal pattern of mammalian auditory hair cell differentiation downstream of hedgehog signaling. *J Neurosci.* **34**, 12865–76.
5. Bermingham, N. A., Hassan, B. A., Price, S. D., Vollrath, M. A., Ben-Arie, N., Eatock, R. A., Bellen, H. J., Lysakowski, A., and Zoghbi, H. Y. (1991). Math1: An essential gene for the generation of inner ear hair cells. *Science.* 1999. **284**, 1837-1841.
6. Cai, T., Seymour, M., Zhang, H., Pereira, F., and Groves, A. (2013). Conditional deletion of *Atoh1* reveals distinct critical periods for survival and function of hair cells in the organ of Corti. *J Neurosci.* **33**, 10110-10122.
7. Chumak, T., Bohuslavova, R., Macova, I., Dodd, N., Bucklova, D., Fritsch, B., Syka, J. and Pavlinkova, G. (2016). Deterioration of the medial olivocochlear efferent system accelerates age-related hearing loss in Pax2-Isl1 transgenic mice. *Molec. Neurobio.* **53**, 2368-2383.
8. Doetzlhofer, A., Basch, M. L., Ohyama, T., Gessler, M., Groves, A. K. and Segil, N. (2009). Hey2 regulation by FGF provides a Notch-independent mechanism for maintaining pillar cell fate in the organ of Corti. *Dev Cell.* **16**, 58–69.
9. Duncan, J. S., and Fritsch, B. (2013). Continued expression of *Gata3* is necessary for cochlear neurosensory development. *PLoS One.* **8**, 62046.
10. Duncan, J. S., Lim, K. C., Engel, J. D. and Fritsch, B. (2011). Limited inner ear morphogenesis and neurosensory development are possible in the absence of *Gata3*. *Int J Dev Biol.* **55**, 297-303.
11. Durruthy-Durruthy, R., Gottlieb, A., Hartman, B. H., Waldhaus, J., Laske, R. D., Altman, R. and Heller, S. (2014). Reconstruction of the mouse otocyst and early neuroblast lineage at single-cell resolution. *Cell.* **157**, 964–78.
12. Dvorakova, M., Jahan, I., Macova, I., Chumak, T., Bohuslavova, R., Syka, J., Fritsch, B. and Pavlinkova, G. (2016). Incomplete and delayed *Sox2* deletion defines residual ear neurosensory development and maintenance. *Sci Rep.* **6**, 38253.

13. Fariñas, I., Jones, K. R., Tessarollo, L., Vigers, A. J., Huang, E., Kirstein, M., de Caprona, D. C., Coppola, V., Backus, C., Reichardt, L. F. and Fritsch, B. (2001). Spatial shaping of cochlear innervation by temporally regulated neurotrophin expression. *J Neuroscience*. **21**, 6170–80.
14. Géléoc, G. S. and Holt, J. R. (2014). Sound strategies for hearing restoration. *Science*. **344**, 1241-062.
15. Gibson, W. S. (1967). Deafness due to orally administered neomycin. *Arch Otolaryngol*. **86**, 63-165.
16. Golub, J., Tong, L., Ngyuen, T., Hume, C., Palmiter, R., Rubel, E. and Stone, J. (2012). Hair cell replacement in adult mouse utricles after targeted ablation of hair cells with diphtheria toxin. *J Neurosci*. **32**, 15093-15105.
17. Govaerts, P. J., Claes, J., van de Heyning, P. H., Marquet, P. G. and De Broe, M. E. (1990). Aminoglycoside-induced ototoxicity. *Toxicol Lett*. **52**, 227-251.
18. Hoppe, U. and G. Hesse. (2017). Hearing aids: Indications, technology, adaptation, and quality control. *GMS Curr Top Otorhinolaryngol Head Neck Surg*. **16**.
19. Iurato, S. and Zellforsch, Z. (1962). Submicroscopic structure of the membranous labyrinth. *Zeitschrift für Zellforschung und Mikroskopische Anatomie*. **56**, 40-96.
20. Izumikawa, M., Batts, S. A., Miyazawa, T., Swiderski, D. L. and Raphael, Y. (2008). Response of the flat cochlear epithelium to forced expression of *Atoh1*. *Hear Res*. **240**, 52-56.
21. Jahan, I., Pan, N., Elliott, K. and Fritsch, B. (2015). Gaps in comprehension of ear development impede successful human hearing organ restoration. *Bioessays*. **37**, 1016-1027.
22. Jahan, I., Pan, N., Kersigo, J. and Fritsch, B. (2010). *NeuroDI* suppresses hair cell differentiation in ear ganglia and regulates hair cell subtype development in the cochlea. *PLoS One*. **5**, e11661.
23. Karis, A., Pata, I., van Doorninck, J. H., Grosveld, F., de Zeeuw, C. I., de Caprona, D. and Fritsch, B. (2001). Transcription factor *GATA3* alters pathway selection of olivocochlear neurons and affects morphogenesis of the ear. *J Comp Neurol*. **429**, 615-620.
24. Kelly, M. C., Chang, Q., Pan, A., Lin, X. and Chen, P. (2012). *Atoh1* directs the formation of sensory mosaics and induces cell proliferation in the postnatal mammalian cochlea in vivo. *J Neurosci*. **32**, 6699-6710.
25. Kiernan, A. E., Pelling, A. L., Leung, K. K., Tang, A. S., Bell, D. M., Tease, C., Lovell-Badge, R., Steel, K. P., and Cheah, S. (2005). *Sox2* is required for sensory organ development in the mammalian inner ear. *Nature*, 2005. **434**, 1031-1035.
26. Kim, Y. H., and Raphael, Y. (2007). Cell division and maintenance of epithelial integrity in the deafened auditory epithelium. *Cell Cycle*. **6**, 612-619.

27. Korver, A. M., Smith, R. J., Van Camp, G., Schleiss, M. R., Bitner-Glindzicz, M. A., Lustig, L. R., Usami, S. I. and Boudewyns, A. N. (2017). Congenital hearing loss. *Nat Rev Dis Primers*. **12**, 16094.
28. Kujawa, S. and Liberman, M. (2006). Acceleration of age-related hearing loss by early noise exposure: Evidence of misspent youth. *J Neurosci*. **26**, 2115-2123.
29. Kujawa, S. G. and Liberman, M. C. (2009). Adding insult to injury: cochlear nerve degeneration after “temporary” noise-induced hearing loss. *J. Neurosci*. **29**, 14077–14085.
30. Lee Y. S., Liu F. and Segil N. (2006). A morphogenetic wave of p27Kip1 transcription directs cell cycle exit during organ of Corti development. *Development*. **133**, 2817–2826.
31. Lee, M. and Park, Y. (2018). Potential of gene and cell therapy for inner ear hair cells. *BioMed Research Int*. **2**, 11.
32. Lee, M. L., Hackelberg, S., Green, K. L., Lunghamer, K. G, Kurioka, T., Loomis, B. R. Swiderski, D. L, Duncan, R. K. and Raphael, Y. (2017). Survival of human embryonic stem cells implanted in the Guinea pig auditory epithelium. *Sci Rep*. **7**.
33. Lesica, N. (2018). Hearing aids: Limitations and opportunities. *The Hear J*. **71**, 43-46.
34. Lilleväli, K., Haugas, M., Matilainen, T., Pussinen, C., Karis, A. and Salminen, M. (2006). *Gata3* is required for early morphogenesis and *Fgf10* expression during otic development. *Mech Dev*. **123**, 415-429.
35. Lin, F. R., Niparko, J. K. and Ferrucci, L. (2011). Hearing loss prevalence in the united states. *Arch Int Med*. **171**, 1851-1853.
36. Liu, Z., Dearman, J. A., Cox, B. C., Walters, B. J., Zhang, L., Ayrault, O., Zindy, F., Gan, L., Roussel, M. F., and Zuo, J. (2012). Age-dependent in vivo conversion of mouse cochlear pillar and deiters' cells to immature hair cells by *Atoh1* ectopic expression. *J Neurosci*. **32**, 6600-10.
37. Ma, Q., Chen, Z., del Barco Barrantes, I., de la Pompa, J. L. and Anderson. D. J. (1998). Neurogenin1 is essential for the determination of neuronal precursors for proximal cranial sensory ganglia. *Neuron*. **20**, 469–482.
38. Macova, I., Pysanencko, K., Chumak, T., Dvorakova, M., Bohuslavova, R., Syka, J., Fritsch, B. and Pavlinkova, G. (2019). *NeuroD1* is essential for the primary tonotopic organization and related auditory information processing in the midbrain. *J Neurosci*. **39**, 984-1004.
39. Mathers, C., Smith, A. W. and Concha, M. (2000). Global burden of hearing loss in the year 2000. *World Health Rep*.
40. McCormack, A. and Fortnum, H. (2013). Why do people fitted with hearing aids not wear them? *Int J Audiol*. **52**, 360-368.
41. McDermott, H. (2004). Music perception with cochlea implants: A review. *Trends Amplif*. **8**, 49-82.

42. McGovern, M., Zhou, L., Randle, M., and Cox, B. (2012). Spontaneous Hair Cell Regeneration Is Prevented by Increased Notch Signaling in Supporting Cells. *Front. Cell. Neurosci.* **12**, 1662.
43. Morris, J. K., Maklad, A., Hansen, L. A., Feng, F., Sorensen, C., Lee, K. F., Macklin, W. B., and Fritsch, B. (2006). A disorganized innervation of the inner ear persists in the absence of ErbB2. *Brain res.* **1091**, 186–99.
44. Müller, U. and Barr-Gillespie, P. G. (2015). New treatment options for hearing loss. *Nat Rev Drug Discovery.* **14**, 346-365.
45. National Institute on Deafness and other Communication Disorders (NIDCD), “Age-related hearing loss” (Publication 97-4235, NIH, 2016; <https://www.nidcd.nih.gov/health/age-related-hearing-loss>).
46. Oshima, K., Shin, K., Diensthuber, M., Peng, A. W., Ricci, A. J., and Heller, S. (2010). Mechanosensitive hair cell-like cells from embryonic and induced pluripotent stem cells. *Cell.* **141**, 704– 716.
47. Pan, N., Jahan, I., Kersigo, J., Duncan, J. S., Kopecky, B. and Fritsch, B. (2012). A novel *Atoh1* "self-terminating" mouse model reveals the necessity of proper *Atoh1* level and duration for hair cell differentiation and viability. *PLoS One.* **7**, 30358.
48. Pan, N., Jahan, I., Kersigo, J., Kopecky, B., Santi, P., Johnson, S., Schmitz, H. and Fritsch, B. (2011). Conditional deletion of *Atoh1* using Pax2-Cre results in viable mice without differentiated cochlear hair cells that have lost most of the organ of Corti. *Hear Res.* **275**, 66-80.
49. Pan, N., Jahan, I., Lee, J. E. and Fritsch, B. (2009). Defects in the cerebella of conditional *NeuroD1* null mice correlate with effective Tg(*Atoh1*-cre) recombination and granule cell requirements for *NeuroD1* for differentiation. *Cell Tissue Res.* **337**, 407–28.
50. Park, Y. H., Wilson, K. F., Ueda, Y., Tung Wong, H., Beyer, L. A., Swiderski, D. L., Dolan, D. F., and Raphael, Y. (2014). Conditioning the cochlea to facilitate survival and integration of exogenous cells into the auditory epithelium. *Mol Ther.* **22**, 873–880.
51. Parker, M., Corliss, D., Gray, B., Anderson, J., Bobbin, R., Snyder, E. and Cotanche, D. (2007). Neural stem cell injected into the sound-damaged cochlea migrate throughout the cochlea and express markers of hair cells, supporting cells, and spiral ganglion cells. *Hear Res.* **2**, 29-43.
52. Pauley, S., Wright, T. J., Pirvola, U., Ornitz, D., Beisel, K. and Fritsch, B. (2003). Expression and function of FGF10 in mammalian inner ear development. *Dev Dynamics.* **227**, 203-15.
53. Petrovic, J., Formosa-Jordan, P., Luna-Escalante, J. C., Abelló, G., Ibañes, M., Neves, J. and Giraldez, F. (2014). Ligand-dependent Notch signaling strength orchestrates lateral induction and lateral inhibition in the developing inner ear. *Development.* **141**, 2313–24.
54. Powers, R. J., Kulason, S., Atilgan, E., Brownell, W. E., Sun, S. X., Barr-Gillespie, P. G. and Spector, A. A. (2014). The Local Forces Acting on the Mechanotransduction Channel in Hair Cell Stereocilia. *Biophysical J.* **106**, 2519–2528.

55. Puligilla, C. and Kelley, M. W. (2017). Dual role for *Sox2* in specification of sensory competence and regulation of *Atoh1* function. *Dev Neurobio.* **77**, 3-13.
56. Raphael, Y. and Altschuler, R. A. (2003). Structure and innervation of the cochlea. *Brain research bulletin.* **60**, 397–422.
57. Raphael, Y., Kim, Y., Osumi, Y. and Izumikawa, M. (2007). Non-sensory cells in the deafened organ of Corti: Approaches for repair, *Int J Dev Bio.* **51**, 649-654.
58. Richardson, G. P. and Russell, I. J. (1991). Cochlear cultures as a model system for studying aminoglycoside induced ototoxicity. *Hear Res.* **53**, 293-311.
59. Robles, L. and Ruggero, M. (2001). Mechanics of the mammalian cochlea. *Physiol Rev.* **81**, 1305-1352.
60. Ruben, R. (1967). Development of the inner ear of the mouse: a radioautographic study of terminal mitoses. *Acta Otolaryngol.* **220**, 221-224.
61. Rybak, L. P., Mukherjea, D., Jajoo, S. and Ramkumar, V. (2009). Cisplatin ototoxicity and protection: clinical and experimental studies. *Tohoku J Exp Med.* **219**, 177-186.
62. Saito, M., Iwawaki, T., Taya, C., Yonekawa, H., Noda, M., Inui, Y., Mekada, E., Kimata, Y., Tsuru, A. and Kohno, K. (2001). Diphtheria toxin receptor-mediated conditional and targeted cell ablation in transgenic mice. *Nat Biotechnol.* **19**, 746-50.
63. Schimmang, T., Tan, J., Müller, M., Zimmermann, U., Rohbock, K., Köpschall, I., et al. (2003). Lack of *Bdnf* and *TrkB* signalling in the postnatal cochlea leads to a spatial reshaping of innervation along the tonotopic axis and hearing loss. *Development.* **130**, 4741–4750.
64. Selimoglu, E. (2007). Aminoglycoside-induced ototoxicity. *Curr Pharm Des.* **13**, 119-126.
65. Sheth, S., Mukherjea, D., Rybak, L. P. and V. Ramkumar (2017). Mechanisms of Cisplatin-induced ototoxicity and otoprotection. *Front Cell Neurosci.* **11**, 3389.
66. Skinner, M. K., Rawls, A., Wilson-Rawls, J., Roalson, E. H. (2010). Basic helix-loop-helix transcription factor gene family phylogenetics and nomenclature. *Differentiation; research in biological diversity.* **80**, 1-14.
67. Song, Z., Jadali, A., Fritsch, B. and Kwan, K. Y. (2017). *Neurogl* regulates CDK2 to promote proliferation of otic progenitors. *Stem Cell Rep.* **9**, 1516–1529.
68. Spoendlin, H. (1984). Factors inducing retrograde degeneration of the cochlear nerve. *Ann. Otol. Rhinol. Laryngol.* **Suppl.112**, 76–82.
69. Srinivasan, R., Dillard, M., Lagutin, O., Lin, F., Tsai, S., Tsai, M., Samokhvalov, I. and Oliver, G. (2007). Lineage tracing demonstrates the venous origin of the mammalian lymphatic vasculature. *Genes Dev.* **21**, 2422-2432.



70. Sugawara, M., Corfas, G. and Liberman, M. C. (2005). Influence of supporting cells on neuronal degeneration after hair cell loss. *J. Assoc. Res. Otolaryngol.* **6**, 136–147.
71. Sun, W. and Salvi, R. J. (2009). Brain derived neurotrophic factor and neurotrophic factor 3 modulate neurotransmitter receptor expressions on developing spiral ganglion neurons. *Neuroscience.* **164**, 1854–1866.
72. Svirsky, M. (2017). Cochlear implants and electronic hearing. *Physics Today.* **70**, 53-58.
73. Ulfendahl, M., Scarfone, E., Flock, A., Le Calvez, S. and Conradi, P. (2000). Perilymphatic fluid compartments and intercellular spaces of the inner ear and the organ of Corti. *NeuroImage.* **12**, 307-313.
74. Wallhagan, M. (2010). The stigma of hearing loss. *Gerontologist.* **50**, 66-75.
75. Walters, B. J., Coak, E., Dearman, J., Bailey, G., Yamashita, T., Kuo, B., and Zuo, J. (2017). In Vivo Interplay between p27Kip1, *Gata3*, *Atoh1*, and Pou4F3 converts non-sensory cells to hair cells in adult mice. *Cell Rep.* **19**, 307-320.
76. Weinstein, M. J., Leudemann, G. M. and Oden, E. M. (1963). Gentamicin, a new antibiotic complex from micromonospora. *J. Med. Chem.* **6**, 463-464.
77. Winterstein, A. G., Liu, W., Xu, D. and Antonelli, P. J. (2013). Sensorineural hearing loss associated with neomycin eardrops and nonintact tympanic membranes. *Otolaryngol Head Neck Surg.* **148**, 277-283.
78. Zeng, F. G., Rebscher, S., Harrison, W. V., Sun, X. and Feng, H. (2008). Cochlear implants: System design, integration and evaluation. *IEEE Rev Biomed Eng.* **1**, 115-142.

# Wildlife Emotions: Animal Rights as Examined Through A Cognitivist Lens

*By K. L. Schultz*

**Abstract:** The aim of this article is to revisit and redefine the scope of a Kantian rights-based theory to include non-human animals. Generally, rights-based theories are predicated on a Kantian deontology that excludes all but rational subjects from possessing of basic rights. Historically, non-human animals—once thought to act on impulse and desire alone—have been excluded from rights-based considerations. However, more recent literature from emotions theorist Martha Nussbaum suggests an alternative picture for non-human animals. Cognitivist theories like Nussbaum's, alongside intensive scientific research, support the notion that non-human animals show signs of intentionality and possess the capacity to emote. If Nussbaum's theory is correct that emotions are indeed intelligent, potentially rational, evaluative judgments, then non-human animals are in fact rational agents. Therefore, non-human animals should be granted limited protections under a deontological moral framework. Ultimately, I shall detail what these limited protections might look like.

## I. The Inner Lives of Non-Human Animals

Historically, there has been much debate over the cognitive capacities of non-human animals. Such inquiry often surrounds the following question: do non-human animals, as they experience the world around them, experience an inner life much like that of humans? Today, many researchers have found that non-human animals possess the capacity for innovation. For example, multiple studies suggest the guppy fish is an innovative forager. Furthermore, there seems to be a direct correlation between innovation and continued motivation. It was concluded that guppies that had shown innovative tendencies once were more likely to be innovative again, therefore suggesting a personality trait.<sup>1</sup> Interestingly, female guppies and guppies of smaller sizes tended to be more innovative, as perhaps both groups of guppies had more motivation to do so. For the smaller guppies, competition for the food source might have been a motivating factor, and for female guppies, a larger quantity of foraged food leads to successful reproduction.

The guppy fish is not the only non-human animal to show signs of innovation. Chimpanzees have been known to make their own tools using grass, twigs, and stones.<sup>2</sup> Dolphins, who are also known for being extremely intelligent, have been known to create and use tools as well.<sup>3</sup> The bottlenose dolphin not only recognizes their own reflection in a mirror but, with training, they can also comprehend language and respond to vocal commands. Perhaps the most notable expression of bottlenose dolphins' creativity and intelligence is their innovative tool making. Bottlenose dolphins have been known to tear off sponges to use them as protection for their long snouts—or rostrums—when foraging for food.

Despite the evidence, however, there are those who still question whether these kinds of examples actually reveal that non-human animals have cognitive capacities like us. Followers of Rene Descartes, Immanuel Kant, and B.F. Skinner have held opposing views while nevertheless advancing theories that focus on the notion that non-human animals are not exactly rationally autonomous creatures, and that their behavior has been merely conditioned through prolonged exposure,

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<sup>1</sup>K.N. Laland and S.M. Reader, "Foraging Innovation in the Guppy," *Animal Behavior* 57, no. 2 (1998): 331-340.

<sup>2</sup> Christophe Boesch and Hedwige Boesch, "Tool Use and Tool Making in Wild Chimpanzees," *Folia Primatol*, 54 (1990): 86-99.

<sup>3</sup>Stan A. Kuczaj and Holli C. Eskelinen, "The 'Creative Dolphin' Revisited: What Do Dolphins Do When Asked to Vary Their Behavior," *Animal Behavior and Cognition*, 1, no. 1 (2014): 66-75.

leading them to respond to select stimuli.<sup>4</sup> These theories paint a picture of the inner-lives of non-human animals as largely un-rational automatons, acting on instinct and conditioning alone. Still, even if non-human animals are for the most part acting on some combination of instinct and behavioral conditioning, what about emotions?

Charles Darwin was the first scientist to systematically study non-human animal emotions. He suggested that non-human animals do, in fact, share similar emotional experiences to humans and that there is perhaps a continuation between human and non-human animal emotions, one that is similar in kind, though different in degree.<sup>5</sup> Darwin's pioneering work in *The Expression of the Emotions in Man and Animals* was a formal catalyst for rekindling the conversation on the age-old inquiry of the emotional lives of non-human animals.<sup>6</sup>

In more recent years, advancements in neuroimaging technology have made non-invasive research of non-human animals more accessible, and scientists have been able to gain a better understanding of what the inner-lives of non-human animals look like from a strictly objective and scientific standpoint. Field research has also played a huge part in collecting scientific data on non-human animal emotions in the wild. Wildlife biologists have observed not only what they take to be fear, anger, and joy in non-human animals, but also more emotionally complex expressions like empathy. Non-human animals have been found to empathize with members of their own species as well as with those belonging to a different species altogether. In one case, a lost woman, who suffered from poor vision, was rescued and protected by a herd of elephants. She was found with the elephants guarding her as "they had encased her in a sort of cage of branches to protect her from hyenas."<sup>7</sup> Humpback whales have also been known to express cross-species empathy. In one documented case, a humpback whale swept a seal out of the water and onto its back to save it from being hunted by killer whales. Expressions of empathy suggest a strong disposition for emotionality in non-human animals, as empathy is seemingly more complex than the basic emotions such as fear, anger, and joy.

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<sup>4</sup>Marc Bekoff, "Animal Emotions: Exploring Passionate Natures," *BioScience*, 50, no. 10 (Oct. 2000): 861-870.

<sup>5</sup>Charles Darwin, *The Expressions of the Emotions in Man and Animals* (John Murray, 1872).

<sup>6</sup>S Paul Ekman, "Darwin's Contributions to Our Understanding of Emotional Expressions," *Philosophical Transactions of the Royal Society London: Biological Science*, 364, no. 12 (Dec. 2009): 3349-3451.

<sup>7</sup>Simon Worrall, "Yes, Animals Think and Feel: Here's How We Know," *National Geographic*, July 15, 2015,

<https://www.nationalgeographic.com/news/2015/07/150714-animal-dog-thinking-feelings-brain-science/>.

This article attempts to establish an argument for non-human animal rights on a Kantian basis, despite the traditional rejection of such rights. In §II, I will paint a much more colorful picture of the inner-lives of non-human animals. I will point to how the empirical evidence for non-human animal emotions, when applied to Martha Nussbaum's cognitivist theory of emotions, logically entails that non-human animals are rationally autonomous, as they engage in cognitively evaluative judgments to which they act accordingly. In §III, I will provide a defense of cognitivism in light of some challenging objections to the theory. In §IV, I will examine a Kantian rights-based theory, ultimately suggesting that emotional cognitivism supplies the premises needed for a limited extension of basic rights to non-human animals. Lastly, in §V, I will discuss what this would mean for our ethical obligations to select members of the wildlife community, and consider what protections non-human animals should be entitled to.

## II. Martha Nussbaum's Cognitivist Account of Emotion

If the empirical evidence explored above does show us that non-human animals emote, what else might this imply? In other words, what does it mean to say that an animal is emoting? Emotions theorist Martha Nussbaum's cognitivist revision of the Ancient Greek Stoic view offers a metaphysical account of emotions. On this account, Nussbaum argues that emotions are cognitively evaluative judgments that include, but do not necessarily require, an affective state in the agent who emotes.<sup>8</sup> According to Nussbaum, when one is emoting, they are judging the evaluative quality of some object, and what ultimately gives rise to a particular emotional state is not the identity of the object we evaluate, but the way in which we evaluate it.<sup>9</sup> Lastly, being eudaimonistic in nature, Nussbaum argues that emotions are in direct correspondence with the agent's flourishing.<sup>10</sup> In *Upheavals of Thought*, she expands her cognitivist theory to include non-human animals, stating: "experimentalists give us reason to conclude that animals are emotional, and that their emotions, like ours, are appraisals of the world, as it relates to their well-being."<sup>11</sup>

Nussbaum points to a few non-human animal case studies to strengthen her inclusion of non-human animal emotionality. One such reference points to the

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<sup>8</sup>Martha Nussbaum, "Emotions as Judgments of Value and Importance," in *Thinking about Feeling: Contemporary Philosophers on Emotions*, ed. Robert C. Solomon (Oxford University Press, 2004), 273.

<sup>9</sup>Nussbaum, "Emotions as Judgments of Value and Importance," 275-276.

<sup>10</sup>Ibid., p. 277.

<sup>11</sup>Martha Nussbaum, *Upheavals of Thought: The Intelligence of Emotions* (Cambridge: Cambridge University Press, 2001), 119.

philosopher George Pitcher, who has cultivated a large body of work in regard to the intentionality of human emotions. In *The Dogs Who Came To Stay*, Pitcher examines the colorful lives of his own dogs, Lupa and Remus, and argues that their actions and behavior seem to possess a similar intentionality. Nussbaum notes that the biography “pursues no theoretical agenda, although it displays the same observation capacities that are used to good theoretical ends in the philosophical work.”<sup>12</sup> In his findings, Pitcher suggests that dogs are indeed capable of a type of “unguarded and unqualified” love that even humans often don’t possess, as the conditionality of love is perhaps unique to the human experience.<sup>13</sup> In his work, Pitcher is able to successfully make the distinction of how the bond with Lupa and Remus looks much different than an attachment that is purely instrumental as a means of survival.

Upon returning home, Pitcher is greeted with warm affection, and, when there is physical distance between himself and his canine companions, Lupa and Remus explicitly show signs of psychological distress. Beyond an outward expression of their own interests, they remarkably seem to have an investment in Pitcher’s wellbeing, as they actively try to comfort him when he is feeling low. This extension of compassion seems to exhibit intentionality and demands us to recognize their pursuits and evaluative judgments as intelligent and indeed other-regarding. The psychological work of other-regarding expresses intelligent intentionality, thought, deliberation, and care for another’s well-being, and stands on its own without room for human projection. If certain non-human animals have the mental capacity to extend beyond their own experience and possess the ability to make intelligent, evaluative judgments in terms of the well-being of others, then it is reasonable to assume that they have the capacity to make evaluative judgments regarding themselves. If Nussbaum’s cognitivist theory of emotion is correct, we must acknowledge that since members of the wildlife community have the capacity to actively make intelligent evaluative judgments towards both themselves and others, then they are capable of emoting in these ways.

### **III. Defending the Cognitivist View**

The general public’s take on emotional experiences is typically intuitive in nature and looks very different than Nussbaum’s cognitivist theory. When people are asked to describe what an emotion *is*, their responses typically follow suit with the popular belief that emotions manifest themselves as *feelings*. It is also commonly entertained that emotions are whimsical in nature, even unpredictable

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<sup>12</sup>Nussbaum, *Upheavals of Thought*, 120.

<sup>13</sup>*Ibid.*, p. 123.

at times, as they seem to arrive out of thin air, appearing and disappearing effortlessly. Essentially, it is widely accepted that emotions, perhaps, are something we have little control over, expressing themselves through bodily sensations. Given the large body of diverse theories and the philosophical literature regarding emotions, it would be unrealistic to address them all. Nevertheless, in defense of the cognitivist theory, I will address some popular criticisms.

In the case of Lupa and Remus, one might raise the concern that perhaps Pitcher is anthropomorphizing the experience of his beloved dogs. In fact, Nussbaum herself cautions that we must refer to detailed histories of interaction and observation of the animal under study to ensure that our conclusions don't fall victim to the "twin pitfalls of reductionism and anthropocentrism."<sup>14</sup> The absence of any self-reporting evidence with regards to non-human animal emotions does present a significant limitation and challenge.<sup>15</sup> Nevertheless, as Nussbaum herself retorts, "there's always room for skepticism about these attributions of intelligence and emotion to animals. But at this point, it is useful to remind ourselves that our attribution of emotion to other human beings itself involves projection that goes beyond the evidence."<sup>16</sup> Nussbaum seems to concede that the intuitive charge of anthropomorphism may be one that cannot be satisfactorily overcome at this time but we must also recognize that the very idea behind this objection applies to interpersonal claims of emotionality as well. Therefore, one cannot reject emotional cognitivism as mere projection without saying the same of interpersonal attributions of emotionality in humans. If we can take it for granted that other people really have emotional experiences, then the objection loses its force.

One might also object that a non-human animal, such as a dog, cannot be engaging in evaluative judgments, such as "fear," or what might be linguistically conveyed as the evaluative judgment, "I am in danger." This is because so many dogs exhibit what looks like fearful behavior in circumstances where they are clearly not in any actual danger. Imagine a dog that continues to bark with "fear" long after a stranger has innocuously walked across their yard. The dog begins frantically running around the house, searching every room and looking out every

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<sup>14</sup>Ibid., 120. The potential oversimplification in non-human animal research, studying specific parts to create a larger narrative as well as human tendency to project our own values and emotions onto the experience of non-human animals, are two common challenges that scientists have to take into consideration when performing field studies.

<sup>15</sup>Acknowledging the communication barriers between non-human animals and humans that exist, wildlife biologists often have to rely on rigorous long-term observational field research to study the emotional life of non-human animals to supplement the absence of testimony.

<sup>16</sup>Ibid., p. 124.

window. Given the absence of any real threat, are we not just projecting our own evaluative judgments concerning danger onto a dog whose behavior looks similar to our own fearful behavior? If so, then what's really happening is nothing more than a prolonged affective state that is either instinctual or conditioned.

Nevertheless, this objection does not sufficiently preclude the possibility that the dog is, in fact, making such a cognitively evaluative judgment, albeit in its own comparatively ignorant way. We might consider how the dog keeps checking every room while tracing the perimeter of the house so as to convince itself that there really is no threat still looming in the area. Perhaps it just takes the dog longer to reach the evaluative conclusion that their territory is safe, ultimately allaying its fear. Thus, the objection is a non-starter. In fact, it bears its own anthropomorphic tendencies by projecting onto the dog an undue level of competence that should not be expected of them simply because we would expect it of ourselves.

Another significant challenge for the cognitivist account is the idea of recalcitrant emotions. Philosophers Justin D'Arms and Daniel Jacobson state that an emotion is recalcitrant when it "exists despite the agent's making a judgment that is in tension with it."<sup>17</sup> In cases of recalcitrance, the individual emoting continues to do so despite an expressed belief to the contrary. A commonly cited example concerns cases where individuals show a recalcitrant fear of flying while being able to express the belief that flying is not, in fact, dangerous. So how could they logically be holding an evaluative belief that flying is dangerous and yet not dangerous at the same time? It must be that fear is not actually a cognitively evaluative judgment but some other tendency altogether.

Nevertheless, we can make sense of recalcitrant emotions on a cognitivist account. Recalcitrant emotion objections like this happen to consider circumstances that take into account statistical averages. However, the recalcitrant objection fails to acknowledge the distinction between the statistically normative assessments of danger and agent-relative assessments of dangers, which include a separate variety of factors in its overall assessment. So, for example, the prospect of dying in a car crash while commuting to work in Nevada might have a statistical average of about 1/10,000, which, barring all other considerations, seems extremely low to moderately low in terms of statistically normative assessments of danger. Nevertheless, take a situation where the statistical average is the same—say a 10,000-piece box of candies where you happen to know that one of the pieces of candies contains a lethal dose of cyanide. The prospect of just trying a piece of candy might suddenly induce the evaluative judgments of fear, in

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<sup>17</sup>Justin D'Arms and Daniel Jacobson, "The Significance of Recalcitrant Emotion," *Real Institute of Philosophy Supplement*, 52 (2003): 124.



the agent-relative sense of the term, given one's own psychological profile, personal experiences, skills, prospects, and alternative interests that might factor into the equation. These factors can also explain why the opposite can hold in cases where the statistically normative assessments report that a certain activity is highly dangerous (e.g., high rise tight-rope walking over a certain distance), and yet, for some individuals with certain psychological profiles, personal experiences, skills, prospects, and alternative interests, the agent-relative evaluative judgment ultimately expresses itself with equanimity.

D'Arms and Jacobson present a case where an individual is afraid to fly despite being aware of the statistical data that flying is safer than traveling by automobile. Nevertheless, this recalcitrant fear of flying might be stemming from an agent-relative sense of the term that factors the agent's own psychological profile (perhaps a history of low self-confidence), personal experiences (perhaps they have a history of watching hours of terrifying plane crash footage), prospects (perhaps they lust for their own life more than the average person), and alternative interests (they enjoy driving). Therefore, an individual who knows what the statistics say about the dangers of flying might agree that flying is not dangerous in the statistically normative sense of the term, and yet still evaluate the prospect of flying as too dangerous for *them* in the agent-relative sense of the term. Granted, the judgment may seem odd, but it can't be considered the same as a simultaneous belief in *p* and *not-p*.

At the very least, this distinction requires more to be said of the agent's own thinking and personal experiences in order to explain their own agent-relative assessments in contrast to the statistically normative assessments. Lastly, these agent-relative conditions might also account for the effectiveness of exposure therapy, as the agent is able to temper their fear with more positive evaluative judgments that come along with enhancing their own sense of personal experience and self-confidence regarding the object in question, giving the individual a greater sense of control over the situation. Practicing tight-rope walking for years is, in one sense, a form of exposure therapy that can allow a person to make the kinds of agent-relative evaluative judgments that go beyond what they know is rationally considered to be safe in the statistically normative sense.

One might object to this response by considering an alternative case where the emotion of pride is expressed and where the agent has no good reason to believe that they have done anything worthy of merit. But in the face of judgment, people do not always give an honest self-report. Therefore, in cases of "pride," it is important to distinguish whether the expression is being deceptively performed or if it is, in fact, a genuine emotion, i.e., a cognitively evaluative judgment of one's personal achievements. Consider cases of success regarding individuals

who were born into “old money.” Are these individuals feeling prideful for their entrepreneurial accomplishments even though they seem fully competent enough to recognize that the stage had already been set for them at birth? It seems far more likely in this scenario that they are feigning pride to signal to others that they are socially deserving of their wealth. Furthermore, even in cases where the pride is sincere, it is not unlikely that someone who spends enough time telling themselves that their success has been self-made might come to suppress any fact to the contrary, thus leading to actual pride over time through temporally induced self-deception.

#### **IV. Animal Rights on A Kantian Account**

As an advocate of duty-based, or deontological, ethics, Immanuel Kant’s moral philosophy was concerned with the moral status of actions in-and-of-themselves, rather than their outcomes or consequences. Kant believed that morally right actions were to be distinguished from preferred actions and, therefore, the theory is attractive in the sense that it does not fall victim to arbitrary subjectivity. For Kant, morality is derived from what he took to be the uniquely human capacity for both autonomy and reason. From this, Kant concluded that moral principles of action are those that can be universalized without incurring a practical contradiction concerning rationally autonomous agents. In *Groundwork of the Metaphysics of Morals*, Kant presents the categorical imperative. There are three distinct formulations of this supreme principle that Kant offers, all of which he claims are logically the same. The principle worth noting for the purposes of this argument is Kant’s Formula of Humanity, which is his second formulation. This principle commands us to treat<sup>18</sup> all rationally autonomous agents as an end-in-itself and never as a mere means.

Kant’s moral philosophy has been foundational for grounding some theories of basic human rights. This is because Kant’s Formula of Humanity provides an understanding of the moral right by which basic human rights—such as the right to life—can be grounded. However, given that Kant’s theory begins from first principles concerning autonomy and reason, it has often been assumed that non-human animals are not to be protected by right, as their instinctual and conditioned existence lacks the necessary rational autonomy to include them in the moral community. Kant himself once stated the following:

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<sup>18</sup>Immanuel Kant, *Groundwork of the Metaphysics of Morals*, ed. Lara Denis, trans. Mary Gregor (Cambridge: Cambridge University Press, 2017).

The fact that the human being can have the representation “I” raises him infinitely above all the other beings on earth. By this he is a person...that is, a being altogether different in rank and dignity from things, such as irrational animals, with which one may deal and dispose at one’s discretion.<sup>19</sup>

Presently, our duties with regards to non-human animals reflect this traditional line of thinking, as any protections granted to non-human animals are indirect in nature. Non-human animals are still considered human property. For example, if someone poisoned another’s outdoor cat, it would be a violation of the owner’s property rights, not a violation of the cat’s rights. These same notions of property can be problematic in regard to non-domesticated animals as well. Wildlife living within the bounds of certain geographical coordinates are viewed as the “property” of a wildlife preserve, national park, or at times, even property of the state itself.

Nevertheless, as previously shown, there is empirical evidence that non-human animals emote. If this is so, and we apply this to Nussbaum’s cognitivist theory of emotions, then we can grant that non-human animals engage in cognitively evaluative judgments, which means that they have the capacity for autonomous reason.<sup>20</sup> For example, if an animal held against its will began to express fear, as well as the relevant corresponding behavior, then it cognitively possesses a judgment that might be linguistically interpreted as “my life is in danger” (i.e., fear), as well as the corresponding will to act accordingly. In other words, it is engaging with autonomous reason. Therefore, the rational nature of fear suggests that non-human animals hold a rationally vested interest in their safety, and thus imposing on this would violate the principle of treating such agents always as an end-in-themselves and never as a mere means.

Nussbaum’s defense of a non-human animal’s ability to emote suggests that non-human animals can make evaluative judgments as rational agents, allowing us to view cases of non-human animal fear for what it is: a cognitively evaluative judgment concerning some imposing threat, which can include, but is not limited to, the integrity of one’s own bodily autonomy. Therefore, given that non-human animals have rationally vested interests, as expressed in certain cases of fear on the cognitivist account, we can conclude on a deontological framework that non-human animals require limited-protections in the form of rights, as non-human animals possess all the qualifications necessary for consideration.

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<sup>19</sup>See Kant, *Lectures on Anthropology*, 7, 127.

<sup>20</sup>It’s worth noting here that unlike Tom Regan, whose deontological approach dispenses with the criterion of rationality, this argument aims to preserve this criterion. For more on Regan’s approach, see, Tom Regan, *The Case for Animal Rights* (University of California Press, 2004).

## **V. Moving Forward: What Does This Rights-based Inclusion Mean for Both Non-Human And Human Animals?**

Inspired by a cognitivist account of emotion, it is not just human life, but emotionally cognitive life that entails the capacity for reason. This is because some non-human animals have the capacity for emotional behavior, leading to the rational effectuation of their will in accordance with evaluative judgments. Upon this recognition, we ought to change the way we currently view some non-human animals by acknowledging and respecting their moral agency as rationally self-determined ends-in-themselves. This will mean granting them the same moral grounds necessary for a limited scope of basic rights.

As rational agents that hold interests in their own bodily autonomy, it is only logically necessary that we extend the same moral basis for human rights in this regard to the arbitrary use and/or disposal of non-human persons. This revision of the moral status of non-human animals might suggest a legal abolishment of the use of animals for agricultural pursuits, ultimately making the institution of factory farming obsolete. Similarly, laboratory testing on non-human animals might also be banned, as using non-human animals as research subjects against their own will violates their rational autonomy. Lastly, trophy hunting would likely be prohibited as well, along with any hunting for purposes other than one's own impending survival.

These legal provisions would require a significant reconfiguration of our current agricultural, research, and recreational practices. Such changes would require immense federal effort as well as support in the public sphere both legislatively and monetarily to get things off the ground; this challenging reality does not go unnoticed. Nevertheless, a shift in our perspective towards viewing all emotionality as rational may provide us with the motivation to respect the dignity of non-human animal life.

## References

- Bekoff, Marc. "Animal Emotions: Exploring Passionate Natures." *BioScience*, vol. 50, no. 10, Oct. 2000, pp. 861-870.
- Boesch, Christophe, and Hedwige Boesch. "Tool Use and Tool Making in Wild Chimpanzees." *Folia Primatol*, vol. 54, 1990, pp. 86-99.
- Laland, K.N., and S. M. Reader. "Foraging Innovation in the Guppy." *Animal Behaviour*, vol. 57, no. 2, Feb. 1999, pp. 331-340.
- Darwin, Charles. *The Expressions of the Emotions in Man and Animals*. John Murray, 1872.
- D'Arms, Justin, and Daniel Jacobson. "The Significance of Recalcitrant Emotion." *Real Institute of Philosophy Supplement*, vol. 52, 2003, pp. 127-145.
- Ekman, Paul. "Darwin's Contributions To Our Understanding of Emotional Expressions." *Philosophical Transactions of the Royal Society London: Biological Sciences*, vol. 364, 12 Dec. 2009, pp. 3349-3451.
- Kuczaj, Stan A., and Holli C. Eskelinen. "The 'Creative Dolphin' Revisited: What Do Dolphins Do When Asked To Vary Their Behavior?" *Animal Behavior and Cognition*, vol. 1, no. 1, 2014, pp. 66-76.
- Nussbaum, Martha C. "Emotions As Judgments of Value and Importance." *Thinking About Feeling: Contemporary Philosophers on Emotions*, edited by Robert C. Solomon, Oxford University Press, 2004.
- Nussbaum, Martha C. *Upheavals of Thought: The Intelligence of Emotions*. Cambridge University Press, 2001.
- Kant, Immanuel. *Lectures on Anthropology*. The Cambridge Edition of the Works of Immanuel Kant ed., Cambridge University Press, 2015.
- Kant, Immanuel. *Groundwork of the Metaphysics of Morals*. Edited by Lara Denis. Translated by Mary Gregor, Cambridge University Press, 2017.
- Regan, Tom. *The Case For Animal Rights*. University of California Press, 2004.
- Worrall, Simon. "Yes, Animals Think and Feel: Here's How We Know." *National Geographic*, 15 July 2015. <https://news.nationalgeographic.com/2015/07/150714-animal-dog-thinking-feelings-brain-science/>

# Magic, Alchemy, and the Spiritual but Not Religious

*By John C. Marshall, Jr.*

**Abstract:** In this paper, I identify a problem within the growing phenomenon of the "spiritual but not religious" community based on the particular experiences of German pilgrims attending a retreat at a Chinese Daoist monastery. Despite interests and affirmations in Daoism, the German pilgrims reacted negatively to Daoist supernatural attitudes and practices. Their SBNR beliefs clashed with Daoist orthodoxy. My research is largely based on a historical examination that contextualizes the problems the German pilgrims experienced and offers a possible remedy to their trans-cultural spiritual dilemma in alchemy and Jungian psychology.

In an article written for the *New York Times Review of Books*, posted on the web site China File, Ian Johnson chronicles his experiences as an interpreter for a group of German pilgrims on a retreat at a Daoist nunnery in China. In the course of events, which included more than a few misunderstandings between devout Daoist nuns and their post-modernist European guests, Johnson describes the often unhappy and jarring social junction of two cultures. Conflicts not defined by issues of table etiquette and monastic protocol, but by the commonly held locus of their beliefs (Johnson 2018).

The Germans, who had set out in good fashion to experience genuine Daoism, were surprised when their hosts gave them instruction in the Daoist pantheon and the rigorous chanting of sacred texts. European practice of Daoism was defined by a refined cosmopolitan vision of the *Dao de Jing*, a respect for nature, and *qigong* exercises. The sudden exposure to a world of supernatural beings, divination, and uniform habits left the Germans disoriented and a little distraught. Their expectations were grounded in the deliberately ambiguous dogma of the non-theistic and anti-institutionalized, but personally fulfilling, “spiritual but not religious” faith, where syncretic engagement means tailoring everything to meet your personal needs, not embracing the metanarratives of religious doctrine. They had read into the Daoist tradition their own hopes that a primitive culture could save them from modernity and were left rattled when the mirror broke (Johnson 2018).

This paper examines the plight of the “spiritual but not religious” (SBNR) and its closely aligned fellow travelers in spirituality “none of the above” (Nones). The incident of the German pilgrims will be viewed as a microcosm of larger concerns, especially with regard to the growing phenomenon of Daoism in western culture. This paper will examine the historical events that promoted contemporary prejudices toward religion and supernaturalism in postmodernist culture and that created trans-cultural issues for the German pilgrims. This paper will address in a positive light the needs of the SBNR community and suggest a solution to their spiritual needs in the embrace of Jungian psychology.

Those who choose to be a part of “the spiritual but not religious” or “none of the above” categories, when asked their religious affiliation, have both their supporters and defilers, but there is little doubt that the membership is growing. Religious scholar, Linda Mercadante, lists four characteristics that define the membership of the “Nones” and SBNR movement. In her study of American religious culture, Mercadante characterizes the “spiritual but not religious” as individualistic: the SBNR are not inclined to community, “non-traditioning,” preferring their own judgment on spiritual matters, health-oriented, promoting well-being over metaphysical concerns, and possessing a spirit of “pick and

choose” dogmatics that draws upon ancient traditions without necessarily affirming any of the “total package” belonging to proscribed teaching (Mercandante 2014a). The SBNR are inclined to embrace Buddha and Christ not as saviors, but as archetypes to fashion their own identity. They largely disassociate from supernaturalism and superstition, which they see as the hallmarks of western religious traditions. Eastern religions, and especially Daoism, have become their venue of choice to rid themselves of what they see as unessential religious baggage. David Palmer and Elijah Siegler, in their book *Dream Trippers*, state that Daoism “is perfectly suited for this cultural smorgasbord because it offers a complete system of meditation, philosophy, and physical practices for health, healing, and martial arts, enhancing the meaning and pleasure of sex and placing the body in a cosmos, these ideas and skills can be learned in discrete packages; a person can take one part and leave the rest” (qtd. in Johnson 2018). While Daoism of this type may be satisfying to westerners keen to have spirituality without religion, it suffers from the reality that Daoism *is* a religion. The SBNR’s highly personalized, counter-culturally driven philosophy inevitably runs into trans-cultural issues when confronting any form of orthodox belief not given to “discrete packaging.”

This refined web of misunderstanding is not without its precedents. The great Victorian translator James Legge was quick to divorce the literary sophistication of the *Dao de Jing* and the *Zhuangzi* from its “superstitious” contexts (Johnson 2018). The *daojiao* (道教) tradition (Daoist religion, as opposed to the *daojia* tradition (道家), or philosophical Daoism) was immured with divination, spirit possession, and magic, and suffered not only from its own cultural prejudice (the Confucians disdained them) but from western aspersions that saw little good in shaman-based beliefs expressed through spells, incantations, and spirit writing. Daoist sages fell under the category of the Jungian “trickster,” a magician inclined to inauthenticity and mischief. The prevailing science of the day, based on a theory of Darwinian social evolution, imbued the magical aspects of religion with all the significance of passing adolescence, an immature expression of primitive psychology that would support later developments in wish-fulfilling faith but fall short of robust scientific certainty (Girardot 2002, pp. 292 and 442ff).

Under the pen of James George Frazer, the prejudice toward magic would acquire a taxonomy that removed magical content from contemporary concerns. Frazer’s *The Golden Bough* defined human religious development in a three-fold arc of ascending depletions: Magic replaced by religion, religion replaced by science. Though magic and science were kindred souls in this schema, magic paled in its relationship to science, as the primitive mind that practiced it could not perceive the increased odds of success in repetitive ritual acts. In Frazer’s



view, magic's potency was simply aligned with a gambler's probability, and the success of the magician's gambit was subject to the forces of nature that would support it. Magic's essential character was that of a pseudoscience. For example, making smoke was similar to cloud formation, and clouds could produce rain. If your community suffered from drought, sooner or later, rain would ease your pain, but the magician's craft, the mimetic blowing of smoke, could, in a sense, bring rain to dry fields. Ritual performance could be credited with this natural cycle.

Frazer also defined a second form of magic based on cause and effect. In this practice, an object was ritually connected in some way with a person of interest—either friend or foe. The object was sympathetically attuned to the person upon whom the magician wished bane or blessing. A ritual performance would be produced on a lock of hair or an effigy to initiate the curse and bring about the desired effect of illness or good health. In a sense, the natural teleology of the object was arrested, with the magician's will subverting natural design (De Vries 1962, pp. 215).

Sigmund Freud, having read Frazer and the evolution, denuded magic of any positive legitimacy, which continued into his psychology of neurosis. Freud, as his many writings on religion attest, was never a supporter of religion, even categorizing the high-water mark of religious faith, the mystical experience, as a recollection of a pre-ego encounter drawn from breastfeeding. The mystic's inability to discern nourishment from nourisher in infancy was the mental residue that vouchsafed oceanic feeling in adulthood. Freud also related magical thinking to early childhood, as a projection of emotional content necessary to form a bond with the outside world. The psychoanalytic method (perhaps tactic) of sequestering religion to the id outside of ego and superego structures moved magic in western social science to the secretive domain of fetishism and dark illicit desire. In concert with this thinking, Emile Durkheim famously distinguished between the ethos of churches and magicians, declaring the magician to be a loner devoid of moral authority and in many ways anti-religious, preferring a world apart from normative alliances and often twisting sacred objects to irreligious needs (Durkheim 1995, pp. 39-42).

Frazer, Freud, and Durkheim's critiques reflect the general trend of European religious history in depriving magic of its potency. In the early centuries of the Common Era, magic driven pagan cults, replete with witches, diviners, and sorcerers, were the indigenous competitors to the advancing Christian missionaries marching through the Roman Empire. Christianity's demonizing of the native tradition was essential to promoting its own remedy to the social structures magicians and witches had created. The Kingdom of God, or at least the Church, was in no need of magic, or, as R. I. Moore illustrates in *The*

*Formation of a Persecuting Society*, had little need for challenges to clerical authority (Moore 1987, pp. 141ff.). A well-grounded prejudice toward magic, especially promoted among the peasant classes where the heresy thrived, would foster a common intellectual milieu that was opposed to polytheism and the illicit bending of nature in secret rites and rituals. The Church successfully disenfranchised magic and witchery and promoted their own faith-based miracles to meet the spiritual and social needs of the general population. The template for magic as a practice devoid of genuine spiritual power was established long before the nineteenth-century social scientists theorized about it. In contemporary parlance, the magician is only a stage performer, who, through illusion and slights-of-hand, creates the appearance of power, though a potency designed largely to entertain. This prejudice in the current western imagination colors any historical narrative that would perceive magical performance as anything more than a trickery of inauthentic gains.

When confronting the supernatural, the SBNR community, whether aware of it or not, demurs to the sanitizing effect of reason created by nineteenth-century social science. Not unlike the medieval cleric's attitude toward magic, they have displaced religion with a personally conceived post-modern rationality that sees little need in what preceded it. In a sense, they have followed Frazer's taxonomy of ascending depletions, which' interpreted religion as little more than a passing corruption. However, the SBNR have not achieved Frazer's desire for scientific rigor. The SBNR's desire for personally-fulfilling, authenticating experiences motivates their countercultural agenda and places the spiritual search more within the domain of Freudian wish fulfillment, a desire to fulfill the id's need for holism and emotional fulfillment in a hostile environment. The German pilgrims sought salvation in a primitive, foreign world, in the ancient devices of Daoism, perhaps reflecting the id's subconscious drive for like things (a synchronic meeting of Chinese mythic past with mind's deepest desires), but when their counterculture ideology met with Daoist praxis, they felt betrayed (Johnson 2018). Frazer's view of magic as a pseudoscience would seem to fit the needs of the SBNR (its primitivism appealing to their sense of spiritual search), but with the post-modernist prejudice toward supernaturalism and magic firmly embedded in their psyche, the Germans failed to cotton to genuine Daoism. The supernatural beliefs of the Daoist nuns reflected a world of superstition that would in-authenticate them (Johnson 2018).

This leads the contemporary person to consider the nature of magic in the Daoist tradition. Chinese religious traditions do not harbor any of the prejudice we associate with magic; there does not appear to be a "Chinese Frazer" promoting a stepped process of social development. The Confucians who frowned upon Daoist irrationality and clamoring spiritualism sought a mollifying

engagement with the customs of magicians, soothsayers, and healers. Unlike its western counterpart, Christianity, which engaged with the magical forces of indigenous paganism in a syncretic manner and then sought to kill off the host to ensure spiritual hegemony, the Confucian elite parlayed with Daoist supernaturalism in a dialectic of complementing forces. This dialogue was designed to promote balance and safeguard political structures, which, somewhat to the dismay of Confucian intellectuals, relied on magic to legitimate any claim to the Mandate of Heaven (Freiburg 1977, pp. 177). Max Weber noted that “Confucianism was helpless when confronted with the magic image of the world, however much it disdained Daoism. This helplessness prevented the Confucians from being internally capable of eradicating the fundamental, purely magical conceptions of the Daoists. To tackle magic always appeared dangerous for the Confucian’s own power” (Weber 1964, pp. 200).<sup>21</sup> Consequently, in its engagement with Confucian orthodoxy, Daoist magic never traveled “underground” into the subconscious world of repression and projection.

Magic in the Daoist tradition is too important to ignore in cross-cultural engagement. Those who belong to the SBNR movement and are seeking spiritual direction in a foreign world need to be sensitive to cross-cultural conflicts created by centuries of intellectual development. Western inclinations to negate supernatural efficacy will not find a comfortable repose in a Chinese world that incorporated magic into every aspect of society—including the sciences. This freedom to evolve and maintain magic within scientific activity opens a rubric for an east-west parlay of magic and supernaturalism, surety and rationalism.

Daoist sensibilities are acute to natural observation and the blending of elemental forces and mirror western attitudes that often view the sciences as the epitome of rational investigation. Within this common territory, it appears that science offers a venue for cross-cultural engagement. Frazer’s depiction of magic as a pseudoscience would be germane to both Daoism’s ancient corporate religious identity and western social and intellectual evolution dynamics. However, unlike the western magical tradition, which suffered an almost irretrievable blow during the Enlightenment, Daoism never lost its capacity for growth as a sort of science. Daoism was a pseudoscience with a potential for growth and shares a sympathy with western Renaissance philosophy. The overlap between science and spirituality is the hallmark of alchemy, an ancient spiritual discipline common to both cultures. Alchemy could provide a spiritual discipline for the SBNR as a category to study traditional Daoist practices and do so without the lingering prejudices normally associated with magic.

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<sup>21</sup> Quote modified from Wade-Giles.

In an effort to mollify the SBNR prejudice toward supernaturalism, the difference between the east and west needs to be examined. Western magic works within a teleological framework that sees a purposeful and rational design to humankind and created things in the universe. The magician seeks to subvert this process by arresting a thing's natural end to serve her own purposes. It is a fundamentally hostile relationship to nature, which seeks a knowledge of control and dominance. Teleology is a firmly embedded belief in the consciousness of the western mind and forms the crux of theistic belief; westerners naturally intuit purposive and ordered design with ascribed ends to their environment (Barrett and Burdett 2018, pp. 1-2). Western teleology consists of Aristotelian substances operating within prescribed limits requiring transcendental motion from a prime mover for completion. An ontology of Being is the fundamental anchor to a subject's identity and creativity. Magic runs counterintuitive to western social and natural expectations (Barrett and Burdett 2018, pp. 1-2).

Daoist magic is firmly imbedded within Daoist philosophy and offers a different understanding of the teleological participation of its magicians. Daoist teleology seeks a harmony attuned to the transformative processes of the world; it is a philosophical outlook geared to evolution and change and does not seek an epistemology of dominance and control but alignment with forces beyond human volition. In many ways, Daoist magic is an effort to restore the natural order, not subvert it. It is a fundamentally immanent view that sees the human body as a microcosm that mirrors and participates in a macrocosm. The use of objects in Daoist magic is not to subvert their teleology but to reveal creative processes reflected in objects that are usually made by the magician, albeit as an intermediary for supernatural forces, grounded in Non-Being or Emptiness as a precursor for utility (Legeza 1975, pp. 30). Daoist philosopher, Liu I-ming (刘一明), writing in the eighteenth century, characterized the mind's relationship with effigies as a pivot that could lead to life or death depending on the holder's attitude toward the effigy's artificiality. Daoist philosophy seeks life beyond symbolic constructions and denies a positive power to representations *per se*. Daoists do not overburden the symbol as a causal source for instrumental change. To focus on representations leads to death, falsity, and a mind unspontaneous to the Dao's inner and hidden promptings. That which is magical is inherent in the representation as a primordial force but not bound to it inimically in a need to coerce an effect. Though the exterior effects of the symbol's locus are clearly desired by those who solicit them, breaking the tandem between unseen and seen forces would be heterodoxy. The effigy or symbol's life-giving power is found in devaluing its physical manifestation and attuning the mind to cosmic sources (Liu I-ming 1988, pp. 32). Such apophatic attitudes toward symbols find support in Daoist theories concerning language, where words are abandoned in the process

of abstracting meaning.<sup>22</sup> In this way, Daoist thought structures magical practice, and magic's ultimate goal is a positive regress to the life source from a fitting representation (Liu I-ming 1988, pp. 32).

Daoist magic possesses an inherently aesthetic ontology. Its association with writing is its primary characteristic. In this way, Daoist magic underwrites a variety of concerns in the social structure: Scripted talismans are an important part of medicine, cryptic characters in need of interpretation form a part of divination, and written revelation supports the beliefs of sects and cults. Laszlo Legeza writes that Daoist calligraphy “has been of the first importance in China since earliest times, both as an artistic carrier of spiritual truths, and as the one means of communication with the spirits” (Legeza 1975, pp. 7). Daoist magic, acting in concert with an ontology that imagined the world in a complementing relationship between Being and Non-Being saw the use of line (Being) and empty space (Non-Being) as a reflection of Dao's ability to manifest itself. Writing was not a mean chore, but a deeper ontological engagement in which a spirit-being acted through the priest or magician writing the character in an ecstatic bond. The common utensil for writing was a wooden planchette, brush, or a legged stool banged on an indelible surface. In the process of writing, “all [the spirit's] spiritual power was immediately *transferred* to the talisman. It was then used by the individual as a kind of ritual object to retain his direct contact with the spirit” (Legeza 1975, pp. 9).

Writing and magic have a serious relationship in the Daoist worldview, which pivots between the mundane and the sacred. The native term for this writing craft is “*Fu Wen*” (符文) and the sigils created for it is “*fu*” (符) (Wen 2016, pp. 53). Talismans could protect against calamity, bless marriages, and cure sickness. In medical practice, they are often burned, mixed with water, and ingested as medicine. The functionality of the sigil was determined by the ubiquitous energy of “*Qi*” (气), a term now common in the American lexicon. *Qi* is an all-encompassing, life-giving force and its impression on the *fu* through the writing process is essential for the sigil's efficacy. This “spirit writing” is also manifest in divination and present in the codified text *Yijing* (易经), or *Book of Changes*, where coins or sticks are tossed in an effort to create a mimetic connection to hexagrams found in the text. This book is commonly consulted for prognostication and philosophical edification. Spirit-beings also work through writing intermediaries to reveal spiritual wisdom, and many Chinese religious texts are an impress from a celestial realm providing not only religious wisdom, but also objects with exorcistic and apotropaic powers (Bumbacher 1990).

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<sup>22</sup> See, for example, the following from the *Zhuangzi*: “A snare is there for rabbits. When you have got a hold of the rabbit, you forget the snare. Words are for the intent. When you have got a hold of the intent, you forget the words” (*Zhuangzi* 2009, pp. 114).

Something that becomes clear in the Chinese religious milieu is the significant role of the priest/magician. Believers desiring fu, prognostication, or teachings on immortality were keen to avoid charlatans and human conduits with dubious spiritual connections. The seventeenth-century novel *Han Xiangzi quanzhuan* (韩湘子全转) relates in compelling detail the magical world of Daoism and the wary search for celestial life and godly help (Yang 2007). Finding genuine aid in spiritual life was often determined by the quality of the human conduit, not the objective energy of metaphysical reality. Deceptions and misunderstandings characterize the oracular as much as accuracy and veracity. The magician will now become the focus of this paper.

The shaman of early Chinese history is the forerunner of the Daoist magician. The older tradition's focus on spirit possession is the hallmark of genuine status in the ranking of magicians in Daoism today, which is usually reflected in the formula, "deity and human become one" (神人合一) (Clart 2003, pp. 166). However, the magician's identity is never the focus of the magician's work, and any egoistic interference in his mind--anything other than the possessing spirit's habitation--immediately renders his revelations suspect or, at worst, invalid (Clart 2003, pp. 167). Philip Clart, in an excellent study of Chinese mediumship, surveys the tradition of possession. One of its principal characteristics is the lack of personal ego in the relationship with the possessing spirit. The medium does not seek the spirit; rather, the spirit chooses him. In most cases, the medium may make more than modest efforts to deny the spirit's takeover of his body. Such denials authenticate the medium's value as a conduit for celestial contact (Clark 2003, pp. 165). However, the humbling medium is still subject to scrutiny: there is a strong ethical dimension to mediumship that is directly related to his personal authenticity. Loud and disorderly behavior suggests the possession of a low-grade spirit, while behavior in accord with Confucian virtues suggests possession by a spirit of nobler rank. The ethical and moral fiber of the medium is of great significance in the "spirit writing" tradition. Higher ranking spirits find an abode in purer minds, and developing a relationship with the spirit world becomes part of the medium's cultivation (Clart 2003, pp. 174ff.).

What seems to emerge in the tradition is a reciprocal relationship with the spirit world, though the medium is still a passive and receptive vessel. The medium's cultivation is structured by the Daoist alchemical tradition. Though the action of the medium is exterior to himself, the essential spirituality of the medium is interior.

The training of a medium is formally called *xiabi* or *xiaji* (also pronounced *yabi* 'and *yaji*, respectively); informally it is referred to

*asxunlian* [training]. The term *xia* is difficult to translate. Its root meaning is ‘hot’ or ‘to heat’, ‘to bum.’ In the composite *xialian* [to heat and refine], it refers to the Daoist alchemical practice; the term *xialian* is sometimes used to refer to the training of a planchette medium. ‘Heating the brush’ or ‘heating the planchette’ thus may indicate that the training of a new medium involves a quasi-alchemical process of gradual refinement and purification of the candidate (Clart 2003, pp. 171).

In this framework, the possessing god becomes more like an instructor than an inhabiting spirit, providing the medium with a teacher-student relationship for automatic writing. The characteristics of alchemy, spiritual instruction, and moral cultivation transform the priest/magician’s vocation into a genuine form of spirituality with its own unique set of goals and patterns of development.

The aforementioned “heating and purification” process is only a small part of the Chinese alchemical tradition. Firing processes (time managed practices aligned with cosmological change), yin and yang dynamics (recognition of male and female forces), Five Elements theory (earth, water, fire, wood, and metal), and the circulation of creative light all contribute to the alchemical pursuit of aligning the self with nature. Chinese alchemy does not demarcate strong boundaries between inner-outer or seen-unseen relations. Anthropology and cosmology are categories intrinsic to each other. Gods in the cosmos find a place in the body, as well as celestial bodies like sun and moon. The “magic” of the magician is to engage in practices that transform the self, and, according to Clart, make him receptive to spirit possession, either as a conduit for revelation or as a student for spiritual development.

In the west, alchemy has often been labeled a pseudoscience or as part of a historical narrative about the development of chemistry. In many ways, it has been burdened by the same prejudice applied to magic, to which it is often related, and so suffers a guilt-by-association. However, there have been serious efforts to revise the characterization of alchemy simply as the primitive efforts to master nature. Noted historian of science, Lawrence M. Principe, writes that claiming alchemy to be magic is “essentially deceptive,” and that the notions that distinguished it from chemistry and promoted fraudulent claims of transmutations in soul and matter emerged during the eighteenth century or after and so reflect the robust rationalism of the Enlightenment-era scientific thought. Principe asserts that while claims of fraud and unscientific methods “may have a limited validity within a narrow context, none of them [are] accurate depiction[s] of alchemy in general” (Principe 2012, pp. 83)

The eighteenth-century reaction toward alchemy was linked to the beliefs and practices in the preceding Renaissance era. The intellectual life of the sixteenth and seventeenth centuries was based on an aesthetic milieu that gave humanity pride of place in a neo-platonic universe ordered by a hierophany of angelic beings, revealed wisdom, and a reciprocating methodology of drawing “inner and outer” worlds into a subjective experience that bestowed credibility to chrysopoeia (Principe 2012, pp. 84, 143ff.). Though alchemy during the Renaissance was concerned with the scientific method, it was framed with a simple and uncritical phenomenology that could be easily tainted by uncritical beliefs. The significance of the subject’s imagination as a guide to truth, belief in animating souls in objects, and efforts to see the world in the holistic terms common to alchemical thinking became muddled during the Renaissance. This occurred when the collective ego-consciousness of the Continent became mired in images and imaginative speculation without the intellectual strength to underwrite its *paideia* with a “critical reflection on fantasy” (Schwartz-Salant 1995, pp. 4-5). Alchemy suffered not so much from its own philosophical perspective, but from the naivete of a surrounding culture that replaced its internal logic with wishful thinking.

Enlightenment thinking was dismissive of a subjectivity based on mythologies and unrefined classicalism, and promoted in its place a scientific world that saw “objectivity” as its foremost concern (Schwartz-Salant 1995, pp. 3). With Descartes’ separation of mind and body into two different entities and the atomization of nature into smaller and smaller units of study, the continuing development of the European mind promoted this trend toward objectivity. (Schwartz-Salant 1995, pp. 4). With the advent of the Enlightenment, rationality and scientific method displaced the literary and artistic tropes of the Renaissance, and the belief in “mystery” changed from embracing an “other dimension” of existence to a simple category of unknown things requiring examination (Schwarz-Salant 1995, pp. 5). The so-called primitive logic of alchemy saw mystery as a dynamic dialogue of dark knowledge and light-filled revelation. Mystery was a more dialectical paradox than an intellectual category of unknown things. Renaissance thinking possessed an endlessly open horizon that enveloped *a priori* structures of the mind with a cosmological ontology that required the alchemist to be both a scientist and theologian searching for a reality that gave human life value and man interaction with the Divine. In his interesting study, *The Senses of Mystery*, Bernard J. Verkamp’s thoughts on mystery can be easily translated to a definition for alchemy: "make man a 'spirit,' a being whose very nature it is to question, to live within the realm of mystery, to seek individuality, uniqueness, privacy, and transcendence of his selfhood beyond the objectivity of the empirical ego" (Verkamp 2005, pp. 135). Unlike modern chemistry, which



focused on the limited mechanics of an object and its reactions, alchemical processes were meaningless without some kind of transformation of the subject (Schwartz-Salant 1995, pp. 6).

It was famed Swiss psychologist Carl Jung who recognized alchemy as more than a quirky, antiquated practice. However, his conversion was slow in coming. Jung's initial encounter with the material in 1913 resulted in an unsympathetic conclusion, regarding alchemy "as off the beaten track and rather silly" (Schwartz-Salant 1995, pp. 22). Alchemy's symbols and cryptic allusions left him baffled. In 1928 noted sinologist Richard Wilhelm sent Jung his newly translated and published Chinese alchemical text known in the west as *The Secret of the Golden Flower* (太乙金華宗旨), which induced an epiphany in Jung's understanding. The next ten years were spent researching alchemical texts with different eyes, and Jung concludes that analytical psychology coincides with alchemy in its efforts to heal and transform the mind (Schwartz-Salant 1995, pp. 22). Science and religion find a home in the blossoming science of psychology. Alchemy showed Jung through its rich symbols, which in his renewed thinking provided nodal points between the conscious and unconscious mind, that the unconscious was a *process*, which would become known as "the process of individuation," the integration of the archetypes self, shadow, anima, animus, and the persona (Schwartz-Salant 1995, pp. 23). Jung's understanding of the relationship between magic and psychology becomes very close and critical: "We are very much afraid of the word magic, it has a bad name, for its meaning has degenerated and it has a purely superstitious sound in our ears. But magical was originally simply psychical, the ancients did not know of the existence of the psyche, so not being able to call anything psychic they used the word magic."<sup>23</sup> Jung's alchemical investigations reached their apotheosis in 1955 with his magnum opus, *Mysterium coniunctionis* (Schwartz-Salant 1995, pp. 23). However, it is not the purpose of this paper to delve into the rich complexities of Jungian psychology but to illustrate the cooperative venues of science and religion in the development of Chinese magic, alchemy, and analytic psychology.

The parallels between magic and psychology are evident in Jung's reading of the *Golden Flower*. Lü Dongbin (吕洞宾) of the T'ang Dynasty (唐朝) is largely considered the preserver and promoter of the *Golden Flower* text as well as a reformer of Daoism during a period of increasing superstition. His efforts at reforming Daoism included the interpretation of alchemical symbols as psychological processes, and thus thought in harmony with Jung's appreciation of the *Golden Flower* text (*Secrets of the Golden Flower* 1962, pp. 6). Symbols and

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<sup>23</sup> Jung, ETH Lecture XI, 3Feb1939, Page 71.

archetypes become for Jung the “thoughts of God”<sup>24</sup> and merit a transposed affinity with the Daoist pantheon. The language of alchemy and the significance of symbolic manifestation is, for Daoism and Jung, a life-giving venue between the unconscious and conscious, seen and unseen forces, anthropology and cosmology. Recalling Verkamp, it is the making of man into a “spirit.”

Liu I-ming’s sense of pivot between life and death found in representations and the essential Daoist ontology of writing are reflected in Jung’s understanding of magical words. “The magical word is one that lets ‘a primordial word resound behind it’; magical action releases primordial action.”<sup>25</sup> Cosmology and anthropology, inner and outer worlds, are not beyond Jungian symbol theory. Spirit possession and the manipulation of planchette and pen find meaningful resonance in Jungian interiority where “[m]agic is a way of living. If one has done one’s best to steer the chariot, and one then notices that a greater other is actually steering it, then magical operation takes place.”<sup>26</sup> Philip Clart’s (2003) observations concerning the development of a medium spirituality in which moral integrity becomes part of an alchemical process find a resonance in Jung’s *Red Book*: “Magic is the working of men on men, but your magic action does not affect your neighbor; it affects you first, and only if you withstand it does an invisible effect pass from you to your neighbor.”<sup>27</sup> The affinities of magic and Jungian psychology could form a template for interreligious dialogue and help frame cross-cultural engagement.

If the German pilgrims or the SBNR community were to genuinely subscribe to the sciences of the modern era in their religious search--something that would likely appeal to them-- a concord with Jungian psychology would meet their post-modernist motivations for a rational and superstition-free framework in which to develop a meaningful spirituality. Alan Watts, who’s plausibly a founding father of the spiritual-but-not-religious community, was a tremendous admirer and supporter of Jungian psychology from the earliest time of his career. He saw Jung as a “bridge-builder” and “peacemaker” of a “Middle Way” that would bring science and religion together (Watts 1992, pp. 72). Watts often derided the repressive instincts of the mind promoted by traditional Christianity and post-war society that “sport with our lives, deny our conscious desires and disturb us with moods, impulses and impressions which we fear and suppress” (Watts, 1997, pp. 75). For Watts, Jungian psychology was the remedy for a psyche in need of drawing shadow into the light of reason.

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<sup>24</sup> Conversations with C.G. Jung, Page 59.

<sup>25</sup> Carl Jung, Letters Vol. 1, Pages 59-63.

<sup>26</sup> Carl Jung, The Red Book, Page 314.

<sup>27</sup> Carl Jung, The Red Book, Page 308.

The path the SBNR would pursue would not be without perils, as one of the elements of their psyche in need of integration would be the magic in alchemy repressed by their western prejudice, perhaps hidden at first but later released from the unconscious—the “realm of the Gods, or the internal counterpart of the external universe” (Watts 1997, pp. 77). The SBNR would have to lose what Mercadante characterized as their individualism, as the primitive devices of Daoism do not rely on self-sufficiency and fantasy as a part of ordinary life (Watts 1997, pp. 75-76). Authenticity would have to come from an outside source. In a sense Jung would become the archetype for their own journey, modeling his transformation of disdain for “rather silly” symbolism to a respectful “virtual point,” which Watts describes in eloquent metaphor as “a centre of balance, between Conscious and Unconscious mind which is, as it were, the child of the two—a child which can only be born when the parents know how to love and accept each other, and this child is the reborn man, the Christ-principle, the Bodhisattva, the God-man of which all religions speak” (Watts 1997, pp. 75-76).

## Bibliography

- Barrett, Justin L. and Emily Reed Burdett. 2018. "The Cognitive Science Religion." *The Psychologist*. 24(4): 1-6 (after download).
- Bumbacher, Stephan Peter. 1990. *Empowered Writing*. Saint Petersburg, Florida: Three Pines Press.
- Clart, Philip. 2003. "Moral Mediums." *Ethnologies*. 25(1): 153-189.
- De Vries, Jan. 1962. "Magic and Religion." *History of Religions*. 1(2): 214-221.
- Durkheim, Emile. 1995. *The Elementary Forms of Religious Life*. New York: NY: The Free Press.
- Freiburg, J.W. 1977. "The Dialectic of Confucianism and Taoism in Ancient China." *Dialectica/Anthropolgy*. 2(3): 175-198.
- Girardot, Norman. 2002. *The Victorian Translation of China*. Berkeley, CA: University of California Press.
- Johnson, Ian. 2018. "In Search of the True Dao." *China File*, November 8, 2018. <http://www.chinafile.com/library/nyrb-china-archive/search-of-true-dao>.
- LaFontaine, Lewis. *Carl Jung Depth Psychology*. April 19, 2018. (Private Blog).
- Legeza, Laszlo. 1975. *Tao Magic*. New York, NY: Thames and Hudson, Inc.
- Liu I-ming. 1988. *Awakening to the Dao*. Translated by Thomas Cleary. Boston, MA: Shambhala Publications.
- Mercandante, Linda. 2014a. "Are the Spiritual but Not Religious Turning East?" *Huffpost*, June 16, 2014. [https://www.huffpost.com/entry/are-the-spiritual-eastern-religion\\_b\\_5161316](https://www.huffpost.com/entry/are-the-spiritual-eastern-religion_b_5161316).
- Mercandante, Linda. 2014b. *Belief Without Borders*. Oxford, UK: Oxford University Press.
- Moore, R. I. 1987. *The Formation of a Persecuting Society*. Oxford, UK: Blackwell Publishers.
- Principe, Lawrence. 2012. *The Secrets of Alchemy*. Chicago, IL: University of Chicago Press.
- Schwartz-Salant, Nathan. 1995. *Jung and Alchemy*. Princeton, NJ: Princeton University Press.
- Secrets of the Golden Flower*. 1962. Translated Richard Wilhelm. Commentary By C.G. Jung. San Diego, New York, and London: Harcourt, Brace, Jovanovich.
- Verkamp, Bernard. 2005. *The Senses of Mystery*. Scranton, PA: Scranton University Press.
- Weber, Max. 1964. *The Religion of China*. Toronto, Canada: Macmillan.
- Wen, Benebell. 2016. *The Tao of Craft*. Berkeley, CA: North Atlantic Press.

- Watts, Alan. 1997. *The Seeds of Genius*. Shaftesbury, Dorset, UK: Element Books Limited.
- Yang, Erzang. 2007. *The Story of Han Xiangzi*. Translated by Philip Clart. Seattle, WA: University of Washington Press.
- Zhuangzi*. 2009. Translated by Brook Ziporyn. Indianapolis, IN: Hackett Publishing Company.

# Cancer Health Disparities Among African Americans: A Socioecological Perspective

*By Seth Spitzley*

**Abstract:** Research shows that health outcomes are influenced by race or ethnicity, socioeconomic status, education and literacy levels, and the physical environment (U.S. Department of Health and Human Services, 2014). The health status of minority groups such, as African Americans, are adversely impacted by inequality (Randall, 2009). In Kalamazoo, Michigan, the leading cause of death for all residents in Kalamazoo County was cancer, where black individuals have the highest death rate among any other racial or ethnic group. Considering that African Americans compose less than 11% of the population in Kalamazoo County suggests that African Americans are disproportionately impacted by cancer compared to other race or ethnicities (Wendt et al., 2010). In this paper the Socioecological Model of Health, as described by McLeroy, Bibeau, Steckler, and Glanz (1988), will be used to analyze the complex relationships between health behavior and socioecological factors of cancer rates among African Americans. In addition, cancer health disparities will be compared to the inequalities that exist in Kalamazoo and evidence-based recommendations for public health interventions will be provided to address these disparities.

## Background

Health disparities are characterized by differences in health outcomes between populations. Specifically, health disparities are differences in the incidence, prevalence, mortality, and burden of diseases among explicit population groups (Wendt, Ready, & Miles, 2010). Health outcomes are often influenced by race or ethnicity, socioeconomic status, education and literacy levels, and the physical environment (U.S. Department of Health and Human Services, 2014). Inequality plays a direct role in health status, particularly for minority groups such as African Americans (Randall, 2009). In Kalamazoo, Michigan, cancer is the leading cause of death among black populations compared with white populations (Wendt et al., 2010). An analysis of the cancer disparities among African Americans in Kalamazoo will be thoroughly examined, as well as the causes of this health difference.

Poverty and racial minority status are compounding factors that often contribute to greater health disparities (Braveman, Cubbin, Egerter, Williams, & Pamuk, 2010). According to the *Kalamazoo County Health Indicators Disaggregated by Race, Place and Socioeconomic Status and Key References for Understanding Health Disparities and for Building Healthier Communities*, in 2007, 16% of Kalamazoo residents are poor and 35% live in poverty. Of the poor in Kalamazoo, 52% of them are black, compared to 30% of white residents. In addition, the poverty rate for black populations is 40% compared with 13% of whites (Wendt et al., 2010). This shows that African Americans far outnumber the number of whites who are poor and living in poverty. The health consequences of poverty in Kalamazoo can translate to worse health status, as seen in a survey conducted by the CDC in 2004-2005. As income decreased among residents, the more likely they reported poor overall health status, which was seen more frequently among black populations than white populations (Wendt et al., 2010). These disparities can have devastating consequences on the African American community's health.

According to the Office of Minority Health, in 2012, African American men were more likely to develop cancer than any other racial group, while African American women were the second leading racial or ethnic group to develop cancer (U.S. Department of Health and Human Services, 2016). As stated by the Michigan Department of Community Health, from 2006 to 2008, the leading cause of death for all residents in Kalamazoo County was cancer, where black individuals had the highest death rate among any other racial or ethnic group (as cited in Wendt et al., 2010). In 2010, black populations only made up 10.9% of the population in Kalamazoo County while white populations composed over 81.7% of the population (U.S. Census Bureau, 2010). This suggests that

African Americans were disproportionately developing cancer compared to other races.

According to Wendt et al. (2010), prostate cancer among black men has an incidence rate that is 1.6 times higher than white men and a death rate that is 2.4 times higher than white men in Kalamazoo. Although certain cancers affect white populations more than black populations, black individuals have a higher cancer mortality rate than white individuals. For example, black women are 10% less likely to be diagnosed with breast cancer; however, black women die from breast cancer at a rate 1.3 times higher than white women. The lower cancer survival rates among African Americans suggests there are other factors that contribute to the outcome of this disease (Wendt et al., 2010). Using the Socioecological Model of Health, as described by McLeroy, Bibeau, Steckler, and Glanz (1988), the subsequent sections will analyze the contributing factors to cancer rates among African Americans and then recommend interventions to address this health problem.

### **Intrapersonal Influences**

McLeroy et al.'s (1988) description of the Socioecological Model of Health includes intrapersonal factors that impact an individual's perception of health. These may include a person's knowledge, skills, attitudes, and beliefs of a health behavior or condition (McLeroy et al., 1988). An individual's knowledge about a given health condition may be a predictor of the outcome of that condition. Gwede's et al. (2010) study of colorectal cancer screenings among African Americans displays the intrapersonal relationships between individual knowledge and behaviors, and its association with cancer rates among this population.

Colorectal cancer (CRC) is the second leading cause of cancer deaths among Americans, with black individuals having a 20% higher incidence rate in comparison to white individuals (American Cancer Society, 2008). In addition, black populations have a 40% higher mortality rate and a lower five-year survival rate compared to whites. This can largely be attributed to differences in access and delivery of screenings and treatment, which contributes to the diagnosis of cancer at a later stage (Kelly, Dickinson, Degraffinreid, Tatum, & Paskett, 2007). Screenings, such as sigmoidoscopy and colonoscopy, are commonly used by doctors to detect signs of ulcers or tumors, which are less likely to be used by black populations. According to the CDC (2006), in 2004, the number of sigmoidoscopy and colonoscopy procedures black individuals received had only risen from 53% to 54% in 2006. In contrast, white individuals receiving these screenings increased from 55% to 59% respectively. This evidence indicates that



black populations are receiving these life-saving screenings less frequently in comparison to white populations (as cited in Gwede et al., 2010).

Theories for the decreased use in sigmoidoscopy and colonoscopy screenings among black populations include a variety of sociocultural and demographic factors. According to the study by Gwede et al. (2010), the surveyed black populations had less knowledge and awareness of cancer screenings. This study showed that black individuals had low levels of awareness, risk perception, and worry about CRC, with 91% of participants believing they were less likely to develop colon cancer compared to the average man or woman. Furthermore, most participants stated that their physician failed to mention blood tests, sigmoidoscopy, or colonoscopy procedures. The low screening referrals by physicians, paired with low screening behaviors from the participants, suggests a reason why the CRC mortality rate is higher among black populations (Gwede et al., 2010).

The higher rates of incidence and mortality among black populations for CRC in Gwede et al.'s study (2010) is a reliable indicator of barriers individuals may generally experience when accessing screenings. The lack of awareness and knowledge of available preventative measures for cancer reveals a disproportionate burden of disease among black individuals. In this case, the intrapersonal factors of black populations' knowledge, skills, and beliefs affected their awareness of cancer screenings, contributing to the higher incidence and mortality rates among this population (Francois, Elysee, Shah, & Gany, 2009; Gany, Shah, & Changrani, 2006; Gwede et al., 2010). This evidence can be applied to the African American residents in Kalamazoo because of the socioeconomic and education barriers they may face. The African American dropout rate in Kalamazoo was 17.5% compared to the 7.2% dropout rate among white individuals. Lower education attained by African Americans impacts their ability to engage in preventative behavior actions and recognize the signs and symptoms of a disease (Cullum, Ornee, Warner, Mullins, & Brooks, 2013).

### **Interpersonal Influences**

McLeroy et al.'s (1988) Socioecological Model of Health states that social networks of individuals influence their health-related behaviors. These social influences include family members, friends, neighbors, colleagues, and other social groups that an individual may be a part of. Furthermore, these social relationships provide resources to the individual, such as information or emotional support (McLeroy et al., 1988). The interpersonal relationships of African Americans play a direct role in health behaviors associated with cancer mortality (White-Means, Rice, Dapremont, Davis, & Martin, 2016).

In a study conducted by White-Means et al. (2016), the relationships of African American women who have breast cancer were analyzed to determine how those relationships impacted their prognosis. Although white women are more likely to develop breast cancer, African American women are more likely to die from it than any other racial or ethnic group. In addition, African American women's five-year survival rate is 79% compared to a 90% five-year survival rate among white women (American Cancer Society, 2014). This fact explicitly demonstrates how African American women are disproportionately affected by breast cancer (White-Means et al., 2016).

Whitman, Orsi, and Hurlbert (2012) argue the higher mortality ratios for African American women are highly correlated with low median household income in areas that are highly segregated. This suggests that financial and geographical barriers largely contribute to this population's survival rate with breast cancer (as cited in White-Means et al., 2016). Additional barriers associated with low socioeconomic status and living in segregated areas are the perceptions of the inadequate support and care African American women receive. Living in areas of racial segregation results in disparities in access to mammography screening and contributes to late diagnosis of breast cancer (Kramer & Hogue, 2009; Acevedo-Garcia, Lochner, Osypuk, & Subramanian, 2003). When diagnosed with breast cancer, African American women often reported that they experienced obstacles that included a lack of information from doctors, insurance limitations, and lack of knowledge (White-Means et al., 2016). Among the population in White-Means et al.'s (2016) study, many of the women reported that having positive physician interactions was central to their treatment and cancer outcomes. When a patient's trust and belief in their provider's ability to seriously consider their health concerns, it prevented delays in diagnosis and treatment of cancer (White-Means et al., 2016). In addition, Mollica and Nemeth (2015) note that African American women diagnosed with breast cancer often experience insurance restrictions that may result in missed or delayed treatments, as well as fewer treatment options. Furthermore, they argue that African American women with breast cancer are often unprepared for the financial and social burdens that can be experienced during and after the disease (as cited in White-Means et al., 2016). The relationship between physicians and patients within this study demonstrates the interpersonal factors that contribute to African Americans' survival rate with breast cancer.

Social support is critical in the prognosis and outcome of any disease. In White-Means et al. (2016) study, the African American women diagnosed with breast cancer often lacked social and emotional support from their peers. Participants in the study reported that they were unable to adequately care for their children, which resulted in their children acting out at school or having to

live with another relative. This can often be attributed to a person's socioeconomic status, as many patients had to find a second or third job or were no longer able to afford childcare. Additionally, employers also gave the women a hard time by changing either their employment status, which affected their health care coverage, or the roles they performed, which often required less cognitive skills (Mollica & Nemeth, 2015; Russell, Von Ah, Giesler, Storniolo, & Haase, 2008; Hamilton, Powe, Pollard, Lee, & Felton 2007). The interpersonal relationships between the patients and their physicians, families, and co-workers have a direct impact on their prognosis and overall health outcomes (White-Means et al., 2016). Again, these findings by White-Means et al. (2016) mirror what African Americans are experiencing in Kalamazoo because of the socioeconomic barriers they face when receiving screenings or treatment for cancer.

### **Organizational Influences**

In McLeroy et al.'s (1988) Socioecological Model of Health, the authors argue that environmental characteristics can influence health behaviors. In addition, organizational factors can also promote behavioral change (McLeroy et al., 1988). Churches are often the centerfold to the black community and, according to Foluke (1999) and Sutton (1992), they are often referred to as "black churches", even though they may consist of the same Christian denomination as other churches (as cited in Giger, Appel, Davidhizar, & Davis, 2008). The apparent distinction the African American community has made by labeling its churches signifies the cultural and religious unity that is shared among its members. McNeill et al. (2018) analyze how the culture of black churches can influence the health outcomes of community members.

Analyzing the social, economic, and physical environment in which an individual interacts in, plays a vital role in their health outcomes. In a study by McNeill et al. (2018), the authors develop a partnership with black churches in areas of low socioeconomic status in order to study the cancer disparities that exist within this population. Their results conclude that several socioeconomic factors and other barriers exist preventing African Americans from seeking care. As a consequence of experiencing more barriers accessing care, African Americans have increased mortality and morbidity rates in regard to cancer (McNeill et al., 2018). Giger et al.'s (2008) study supports these findings by linking socioeconomic status with an increased likelihood of being a single parent, sole head of household, and living in areas that lack adequate access to care, affecting one's ability to obtain care. These conclusions translate to African Americans in Kalamazoo, as the trends for unmarried mothers of all races steadily

increased since 2000 and was at 42% in 2011 (Cullum et al., 2013). The increased socioeconomic barriers to health care that African Americans encounter explains why cancer health disparities exist and can be applied to the black community living in poverty in Kalamazoo (Giger et al., 2008).

Historically, African Americans have received subpar medical care and, according to Cherry and Giger (2008), the Hill-Burton Act provided medical facilities, which aimed to serve underprivileged areas to address health disparities that resulted from segregation laws. This unintentionally created African American hospitals that were shorthanded and lacked funding. As a result of poor services, the Hill-Burton Act caused many African Americans to avoid health care facilities (as cited in Giger et al., 2008). In McNeill et al.'s (2013) study, many African Americans noted that cultural insensitivity and institutional racism were compounding factors that contributed to their lack of use of the healthcare system. The lack of trust and cultural sensitivity African Americans experience by health care organizations has resulted in decreased access to services (Giger et al., 2008). This research contributes to increased cancer morbidity and mortality rates for this population and parallels with experiences African Americans face in Kalamazoo. African Americans are less likely to seek medical services if there is an inadequate quality of care, and if socioeconomic or cultural barriers exist, all of which result in worse health outcomes (McNeill et al., 2013).

### **Community Influences**

The Socioecological Model of Health suggests that communities refer to a geographical area in which individuals reside, groups to which individuals belong, and relationships between organizations and groups within an area (McLeroy et al., 1988). As previously discussed, the environment in which one lives, works, and plays in, contributes to one's overall health outcomes. An individual's residential environment can have both positive and negative impacts on their health at a neighborhood-level. For the purpose of this analysis, the effects of neighborhood chronic toxic stress will be examined as it relates to cancer disparities (DeGuzman & Schminkey, 2016).

According to Epel et al. (2004), inner-city African Americans have higher rates of cancer than other races (as cited in DeGuzman & Schminkey, 2016). These differences in incidence rates among African Americans occur in racially concentrated communities with low socioeconomic status. In U.S. urban areas, blacks are more likely to live in racially concentrated areas of poverty, which increases their susceptibility to adverse health consequences (DeGuzman & Schminkey, 2016). For example, Groth and D'Cunha (2010) note that blacks with lung cancer living in segregated areas of poverty have larger tumors than whites

from a similar socioeconomic status (as cited in DeGuzman & Schminkey, 2016). African Americans consist of 75.9% of the residents in the Northside of Kalamazoo, an area where more than half of the population lives in poverty. This densely racially segregated area is often associated with less cancer prevention and treatment options that contribute to worse cancer outcomes (Cullum et al., 2013).

There are several disadvantages of living in low-income neighborhoods and residents have reported higher levels of stress that are associated with violence and crime (DeGuzman & Schminkey, 2016). The biological effects that chronic stress has on the body can exacerbate health issues, such as cancer. For example, van Loon, Markkanen, and Hübscher (2010) argue that exposure to chronic stress can irreversibly damage DNA, causing increases in genetic mutations that can lead to cancer (as cited in DeGuzman & Schminkey, 2016). The causes of chronic stress within low socioeconomic areas vary but are largely attributed to violent crime and noise (DeGuzman & Schminkey, 2016). Crime rates in racially concentrated areas tend to be higher as opposed to less segregated areas, and these concentrated locations can cause increased stress levels among residents, affecting their overall health. Furthermore, this high amount of stress can cause unhealthy behaviors such as smoking, drinking, and improper nutrition (DeGuzman, Merwin, & Bourguignon, 2013). The unhealthy behaviors paired with chronic stress can increase the risks of cancer (DeGuzman & Schminkey, 2016).

Racially concentrated areas of poverty have higher percentages of people on public assistance and who are unemployed (DeGuzman & Schminkey, 2016). As previously explained, these factors can adversely impact cancer rates among African Americans due to socioeconomic barriers. In Kalamazoo, the Northside has one of the highest rates of poverty and the lowest rates of people in the labor force. Furthermore, this racially segregated area is among one of the highest areas with 35% - 50% of the population receiving food stamps or SNAP benefits within the past year (Callum et al., 2016). This data suggests a geographic explanation for the cancer disparities that exist for African Americans in Kalamazoo.

### **Societal Influences**

Policies, procedures, and laws have direct positive and negative impacts on the health of a population (McLeroy et al., 1988). Through their policies, the U.S. government and corporations play a large role in the health outcomes of people. Behaviors of corporations essentially influence the behaviors of populations and can, therefore, explain incidence rates and the distribution of cancer. More specifically, tobacco, alcohol, and food industries are key

participants in the development of many types of cancers (Freudenberg, Galea, & Fahs, 2008).

The corporate practices of advertising, pricing, and product design all influence what the general public consumes; however, marketing experts have tailored products to specific populations, which partly explains differences in cancer rates among socioeconomic and racial groups. African Americans are consistently more likely to develop cancers related to tobacco use, alcohol, and diet than whites (National Cancer Institute, 2005; Slade, 2001; Givel, 2001; Freudenberg et al., 2008). As Dr. Samuel Broder (1991), former Director of the National Cancer Institute, said, “poverty is a carcinogen” (as cited in Freudenberg et al., 2008). This can be applied to the incidence rates of certain types of cancers for African Americans that are attributable to their socioeconomic status. For example, tobacco and alcohol use is much more common among those who live in poverty. In addition, African Americans and low-income populations are more likely to be obese than groups from higher income levels (Brownell & Horgen, 2004). Furthermore, blacks are less likely to seek help for these problems (Freudenberg et al., 2008).

Tobacco, alcohol, and food industries have contributed to disparities in cancer by directly targeting populations of low socioeconomic status and racial minority groups across the U.S. (Brownell & Horgen, 2004; Landrine, Klonoff, Campbell, et al., 2000; Moore, Williams, & Qualls, 1996; Williams & Jackson, 2005). Tobacco companies have focused on young people, corporate sponsorships, and lobbied against clean air laws and tax laws in order to increase sales (Slade, 2001). The alcohol industry also targets young people, sponsor events to create social norms, lobby against excise taxes, and make alcohol more available in low-income and black communities (Foster, Vaughan, Foster, et al., 2006; Alaniz, 1998; Giesbrecht, 2000). Finally, the food industry influences dietary behavior that supports profit, not human health, through product design, advertising, pricing, and lobbying (Brownell & Horgen, 2004; Vigneri, Frasca, Sciacca, et al., 2006). These industry practices are linked with cancer morbidity and mortality among low-income and African American communities (Freudenberg, 2008).

The tobacco, alcohol, and food industries’ advertising, pricing, and opposition to health prevention policies further contributes to cancer disparities. Through the targeting of advertising toward African Americans and other racial minorities of low socioeconomic status, these industries cause more exposure to negative health messages (Brownell & Horgen, 2004; Landrine, Klonoff, Campbell, et al., 2000; Moore, Williams, Qualls, 1996; Williams & Jackson, 2005). In addition, the strategic placement of retail outlets that offer unhealthy products like tobacco, alcohol, and nutrient-deficient foods are determined by

income status and race (Reidpath, Burns, Garrard, et al., 2002; Schneider, Reid, Peterson, et al., 2005). Also, current policies and laws, such as bans on smoking, advertising, or food safety rules, might be enforced differently, and to a lesser degree, in black communities than in white ones (Givel & Glantz, 2001; LaVeist, 2005). Finally, these low-income and racially concentrated communities may have less access to health information through health promotion campaigns (Naff, Cote, Wenzlaff, et al., 2007). The above are examples of how the tobacco, alcohol, and food corporations contribute to increased consumption of cancer-causing products in the U.S. The effects of these corporation practices reach to Kalamazoo, Michigan and impact the cancer disparities that are occurring within this community.

### **Interventions**

The Socioecological Model of Health provides a structure for analyzing how environmental factors influence behaviors, thus allowing for specific interventions to be formed (McLeroy et al., 1988). Interventions from the individual levels to the policy levels will help address cancer health disparities and work to eliminate them. For an intervention to be successful in addressing the cancer differences among African Americans, an evidence-based, patient-centered, and culturally sensitive involvement must be considered. In addition, interventions need to focus on primary prevention and work toward health promotion practices (White-Means et al., 2016).

The individual, interpersonal, and organizational levels of the socioecological model can be grouped together to form successful interventions that focus on an individual and the interplaying environmental factors that surround them. First, it is critical that African Americans are educated and aware of cancer prevention and management. These skills can be improved by increasing community participation in cancer screenings and developing community-based participatory research. Access to free and low-cost cancer screenings are a direct result of cancer inequalities among African American communities (Gany, Herrera, Avallone, & Changrani, 2006; Shokar, Nguyen-Oghalai, & Wu, 2009; Gwede et al., 2010). In addition, providing support to African Americans with cancer will allow for greater survival rates and help address mortality rates among this population. Creating support groups is a great intervention technique that provides social support and education to an individual undergoing cancer treatment (White-Means et al., 2016). Finally, creating partnerships among community members and organizations such as community centers, churches, universities, and government agencies will address gaps in care that African Americans are facing (Mollica & Nemeth, 2015). Giger

et al. (2008) noted that individuals who attended church had better health outcomes, suggesting the church has a positive influence on the community's health. It also encourages cooperation, communication, and commitment once partnerships have been developed, creating a trusting relationship between this population and the healthcare system that has continually failed them (Ammerman & Corbie-Smith, 2004). Another benefit of creating partnerships is to promote co-learning that facilitates knowledge, skills, and abilities to be transferred and used among community members (Goldman & Roberson, 2004). The benefits provide immediate positive results for participants, which reinforces behaviors to continue a program along with the program's ultimate success (Giger et al., 2008).

Community and policy-level interventions focus on a broader aspect of the cancer disparity that affects African Americans and attempts to make changes to systems that contribute to these health inequalities. These interventions call for advocacy among community members, organizations, and representatives to address unjust policies and practices by corporations or government agencies. Specifically, having companies withdraw unhealthy products that contribute to cancers or cancer disparities, require companies to fund health promotion campaigns, raise taxes on unhealthy products, restrict access, and restrict influence (Givel, 2001; Dorman, Wallack, & Woodruff, 2005; Pertschuk, 2001). These measures will ensure that access and exposure to cancer-causing products are decreased in hopes of eliminating the disparity. Other interventions include land-zoning laws that can help deter the number of convenient stores that sell tobacco, alcohol, or unhealthy food products from coming to a racially concentrated low-income area and counter-advertising to bring awareness to the public have proven to be effective (Givel, 2001; Freudenberg, Galea, & Fahs, 2008). Having a health-in-all policy perspective will allow for the consumer health to be prioritized over the profits of private corporations.

For these intervention methods to be successful, advocacy groups and organizations need to have methods that are culturally competent to the population in focus. All interventions to address cancer inequalities among African Americans should have cultural advisors that can be trusted by the community (Gwede et al., 2010; Mollica & Nemeth, 2015). Furthermore, creating partnerships with organizations that are pillars of the community is essential. These organizations include churches, barbershops, ethnic restaurants, grocery stores, and clinics that are in underserved areas (Mollica & Nemeth, 2015). Having a culturally sensitive intervention allows for trustworthy relationships to be built among the African American community and healthcare facilities. When the target population believes and trusts in the intervention, a snowball effect may occur where community members begin to educate and refer their peers to join



the health behavior change. These methods will ensure cancer disparities among African Americans are addressed in a culturally competent, patient-focused manner (Mollica & Nemeth, 2015; White-Means et al., 2016).

### **Conclusion**

Using McLeroy et al.'s (1988) Socioecological Model of Health, cancer health disparities were analyzed for African Americans and related them to inequalities that exist in Kalamazoo, Michigan. Examining all five levels of McLeroy et al.'s (1988) model demonstrates how the different factors have caused increased rates in cancer mortality and morbidity among this population. Furthermore, this research establishes that a disparity does exist and should be addressed by implementing evidence-based interventions at all levels of the socioecological model. It is important that interventions are patient-centered, culturally competent, and create trustworthy relationships between the community and the healthcare system for it to be successful in eliminating the disparity.

## References

- Acevedo-Garcia, D., Lochner, K.A., Osypuk, T.L., & Subramanian, S.V. (2003). Future directions in residential segregation and health research: a multilevel approach. *American Journal of Public Health, 93*(2), 215-221
- Alaniz, M.L., (1998). Alcohol availability and targeted advertising in racial/ethnic minority communities. *Alcohol Health Res World, 22*(4), 286-9
- American Cancer Society. (2008). *Colorectal cancer facts and figures 2008-2010*. Retrieved from <https://www.cancer.org/research/cancer-facts-statistics/colorectal-cancer-facts-figures.html>
- American Cancer Society. (2014). *Cancer Facts & Figures*. American Cancer Society; Atlanta
- Ammerman, A., & Corbie-Smith, G. (2004). Research expectations among African American church leaders in the PRAISE! Project: A randomized trial guided by community-based participatory research. *American Journal of Public Health, 93*(10), 1720-1727
- Braveman, P.A., Cubbin, C., Egerter, S., Williams, D. R., & Pamuk, E. (2010). Socioeconomic disparities in health in the United States: What the Patterns tell us. *American Journal of Public Health, 100*(1), 186-196. Doi:10.2105/aJPH.2009.166082
- Broder, S. (1991). The human costs of cancer and the response of the National Cancer Program. *As;dl 67*(6). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/2001564>
- Brownell, K.D., Horgen, K.B. (2004) *Food fight: the inside story of the food industry, America's obesity crisis and what we can do about it*. New York: McGraw-Hill
- Centers for Disease Control and Prevention. (2006). Behavioral risk factor surveillance system. Retrieved from <http://www.cdc.gov/brfss>
- Cherry, B., & Giger, J.N. (2008). African Americans. In J.N. Giger & R Davidhizar (Eds.), *Transcultural nursing: Assessment and intervention* (5<sup>th</sup> ed., pp, 177-220). St. Louis, MO: C. V. Mosby

- Cullum, J., Ornee, J., Warner, L., Mullins, M., & Brooks, C. (2013). Kalamazoo county needs assessment 2013. Retrieved from [https://www.kalcounty.com/hcs/caa/pdf\\_files/kalamazoo%20county%20community%20needs%20assessment%202013.pdf](https://www.kalcounty.com/hcs/caa/pdf_files/kalamazoo%20county%20community%20needs%20assessment%202013.pdf)
- DeGuzman, P.B., Merwin, E.I., & Bourguignon, C. (2013). Population Density, distance to public transportation, and health of women in low-income neighborhoods. *Public Health Nursing, 30(6)*, 478-490
- DeGuzman, P.B., & Schminkey, D.L. (2016). Influencing genomic change and cancer disparities through neighborhood chronic toxic stress exposure: a research framework. *Public Health Nursing, 33(6)*, 547-557. doi:10.1111/phn.12290
- Dorfman, L., Wallack, L., Woodruff, K. (2005). More than a message: framing public health advocacy to change corporate practices. *Health Educ Behav., 32(3)*, 320-36
- Epel, E.S., Blackburn, E.H., Lin, J., Dhabhar, F.S., Adler, N.E., Morrow, J.D., & Cawthron, R.M. (2004). Accelerated telomere shortening in response to life stress. *Proceedings of the National Academy of Sciences of the U.S.A., 101(49)*, 17312-17315. doi:10.1073/pnas.0407162101
- Foluke, G. (1999). *The old time religion: A holistic challenge to the black church*. New York: Wintson-Derek
- Foster, S.E., Vaughan, R.D., Foster, W.H., et al. (2006) Estimate of the commercial value of underage drinking and adult abusive and dependent drinking to the alcohol industry. *Arch Pediatr Adolesc Med., 160(5)*, 473-8
- Francois, F., Elysee, G., Shah, S., & Gany, F. (2009). Colon cancer knowledge and attitudes in an immigrant Haitian community. *Journal of Immigrant and Minority Health, 11*, 319–325. doi :10.1007/ s10903-008-9126-6
- Freudenberg, N., Galea, S., & Fahs, M. (2008). Changing corporate practices to reduce cancer disparities. *Journal of Health Care for the Poor and Underserved 19*. 26-40. Retrieved from file:///C:/Users/sspit/Downloads/Changing\_Corporate\_Practices\_t.pdf
- Gany, F.M., Herrera, A.P., Avallone, M., & Changrani, J. (2006). Attitudes, knowledge, and health-seeking behaviors of five immigrant minority communities in the prevention and screening of cancer: A focus group

- approach. *Ethnicity and Health*, 11(1), 19–39. doi: 10.1080/13557850500391394
- Gany, F.M., Shah, S.M., & Changrani, J. (2006). New York City's immigrant minorities. Reducing cancer health disparities. *Cancer*, 107(8, Suppl.), 2071–2081. doi: 10.1002/cncr.22155
- Giesbrecht, N. (2000). Roles of commercial interests in alcohol policies: recent developments in North America. *Addiction*, 95(4), 581-95
- Giger, J.N., Appel, S.J., Davidhizar, R., & Davis, C. (2008). Church spirituality in the lives of the African American community. *Journal of Transcultural Nursing*, 19(4), 375-383. doi: 10.1177/1043659608322502
- Givel, M.S. (2001) Tobacco lobby political influence on US state legislatures in the 1990s. *Tob Control*, 10(2),124–34
- Givel, M.S., & Glantz, S.A. (2001). Tobacco lobby political influence on US state legislatures in the 1990s. *Tob Control*, 10(2), 124-34
- Goldman, V. M., & Roberson, T. J. (2004). Churches, academic institutions and public health: Partnership to eliminate health disparity. *North Carolina Medical Journal*, 65(6), 368-372
- Gwede, C. K., William, C.M., Thomas, K.B., Tarver, W.L., Quinn, G.P., Vadaparampil, S.T., Kim, J., Lee, J., & Meade, C.D. (2010). Exploring disparities and variability in perceptions and self-reported colorectal cancer screening among three ethnic subgroups of U.S. blacks. *Oncology Nursing Forum*, 37(5), 581-591. Retrieved from file:///C:/Users/sspit/Downloads/966133V6003U68N8.pdf
- Hamilton J.B., Powe B.D., Pollard A.B., Lee K.J., & Felton A.M. (2007). Spirituality among African American cancer survivors: Having a personal relationship with God. *Cancer Nurs.* 30, 09–316. doi: 10.1097/01.NCC.0000281730.17985.f5
- Kelly, K.M., Dickinson, S.L., Degraffinreid, C.R., Tatum, C.M., & Paskett, E.D. (2007). Colorectal cancer screening in three racial groups. *American Journal of Health Behavior*, 31, 502-513
- Kramer, M.R., & Hogue, C.R. (2009). Is segregation bad for your health? *Epidemiology Review*, 31, 178-194

- Landrine, H., Klonoff E.A., Campbell, R., et al. (2000) Sociocultural variables in youth access to tobacco: replication 5 years later. *Prev Med.*, 30(5):433-7
- LaVeist, T.A. (2005). Disentangling race and socioeconomic status: a key to understanding health inequalities. *J Urban Health.*, 82(3),26-34
- McLeroy, K.R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, 15(4). 351-377. Retrieved from file:///C:/Users/sspit/Downloads/McLeroy%20et%20al.%20Socioecological%20model%20for%20health%20(3).pdf
- McNeill, L.H., Reitzel, L.R., Escoto, K.H., Roberson, C.R., Nguyen, N., Vidrine, J.I., Strong, L.L., & Wetter, D.W. (2018). Engaging black churches to address cancer health disparities: Project CHURCH. *Frontier Public Health*, 6(191). doi:10.3389/fpubh.2018.00191
- Mollica, M., & Nemeth, L. (2015). Transition from patient to survivor in African American breast cancer survivors. doi:10.1097/NCC.0000000000000120
- Moore, D.J., Williams, J.D., & Qualls, W.J. (1996). Target marketing of tobacco and alcohol-related products to ethnic minority groups in the United States. *Ethn Dis.* 6(1-2):83-98
- Naff, J.L., Coté, M.L., Wenzlaff, A.S., et al. (2007). Racial differences in cancer risk among relatives of patients with early onset lung cancer. *Chest*, 131(5), 1289-94
- National Cancer Institute. (2005). Cancer trends progress report—2005 update. *National Cancer Institute, NIH, DHHS*. Retrieved from <http://progressreport.cancer.gov>
- Pertschuk, M. (2001). Smoke in their eyes: lessons in movement leadership from the tobacco wars. *Nashville, TN: Vanderbilt University Press*
- Randall, V. R. (2009). Inequality in health care is killing African Americans. *American Bar Association*, 36(4). Retrieved from [https://www.americanbar.org/groups/crsj/publications/human\\_rights\\_magazine\\_home/human\\_rights\\_vol36\\_2009/fall2009/inequality\\_in\\_health\\_care\\_is\\_killing\\_african\\_americans/](https://www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/human_rights_vol36_2009/fall2009/inequality_in_health_care_is_killing_african_americans/)

- Reidpath, D.D., Burns, C., Garrard, J., et al. (2002). An ecological study of the relationship between social and environmental determinants of obesity. *Health Place, 8*(2),141-5
- Russell K.M., Von Ah D.M., Giesler R.B., Storniolo A.M., & Haase J.E. (2008). Quality of life of African American breast cancer survivors: how much do we know? *Cancer Nurs. 31*, 36–45. doi: 10.1097/01.NCC.0000339254.68324.d7
- Schneider, J.E., Reid, R.J., Peterson, N.A., et al. (2005). Tobacco outlet density and demographics at the tract level of analysis in Iowa: implications for environmentally based prevention initiatives. *Prev Sci., 6*(4), 319-25
- Shokar, N.K., Nguyen-Oghalai, T., & Wu, H. (2009). Factors associated with a physician's recommendation for colorectal cancer screening in a diverse population. *Family Medicine, 41*, 427–433.
- Slade, J. (2001). Regulating tobacco. *Oxford University Press, 72-110*
- Sutton, C.D. (1992). *Pass it on: Outreach to minority communities*. Philadelphia: Big Brothers/Big Sisters of America
- U.S. Census Bureau. (2010). 2010 Census Summary File. Retrieved from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>
- U.S. Department of Health and Human Services. (2014). Disparities. Retrieved from <https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities>
- U.S. Department of Health and Human Services. (2016). Cancer and African Americans. Retrieved from <https://www.minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=16>
- van Loon, B., Markkanen, E., & Hübscher, U. (2010). Oxygen as a friend and enemy: How to combat the mutational potential of 8-oxo-guanine. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1568786410000947?via=ihub>

- Vigneri, P., Frasca, F., Sciacca, L., et al. (2006). Obesity and cancer. *Nutr Metab Cardiovasc Dis.*, *16(1)*:1-7
- Wendt, A., Ready, T., & Miles, A. (2010). Kalamazoo county health indicators disaggregated by race, place and socioeconomic status and key references for understanding health disparities for building healthier communities. Retrieved from <https://wmich.edu/sites/default/files/attachments/u5/2015/Walker-Institute-Kalamazoo-Matters-Factsheet.pdf>
- White-Means, S., Rice, M., Dapremont, J., Davis, B., & Martin, J. (2016). African American women: surviving breast cancer mortality against the highest odds. *International Journal of Environmental Research and Public Health*, *13(6)*. doi:10.3390/ijerph13010006
- Whitman, S., Orsi, J., & Hurlbert, M. (2012). The racial disparity in breast cancer mortality in the 25 largest cities in the United States. *Elsevier*, *36(2)*, 147-151. <https://doi.org/10.1016/j.canep.2011.10.012>
- Williams, D.R., & Jackson, P.B., (2005) Social sources of racial disparities in health. *Health Aff (Millwood)*, *24(2)*:325-34

# A Village Comes to Life: The Interpretation of Henry Ford's Greenfield Village

*By Claire E. Herhold*

**Abstract:** Of all American living history sites, Greenfield Village, in Dearborn, Michigan, is one of the most interesting. Founded by Henry Ford and opened in 1929, Greenfield Village consists of 90 acres of nearly 100 historic buildings, all moved to the site from around the country and reassembled in a vague village formation. Unlike Colonial Williamsburg, the site is not historically significant and represents no one geographic location or time period. While in keeping with Ford's vision of celebrating small-town life and the humble origins of many great thinkers and innovators, this structure has presented challenges for both the staff and the public to settle on a particular interpretive theme. When combined with the more universal criticisms regarding training, equipment, and messaging, these challenges make Greenfield Village a veritable microcosm of the strengths and weaknesses of living history interpretation.

The history of interpretive programming at Greenfield Village demonstrates that weaknesses commonly criticized by academic historians are not inherent in living history programming. In fact, well-educated and trained park staffers saw living history as the solution to these problems and to finally find a way to unify Greenfield Village's unique structure under a cohesive and effective interpretive theme. The 1982 implementation of the Edison/Saltbox project was a direct response to the most current scholarship on museum education and represented a continued dialogue with other open-air history museums. More recent attempts to improve the interpretation of African American history at Greenfield Village echo similar strategies at Colonial Williamsburg and respond directly to calls within the academy to address the prevalence of nostalgia in presentations of the past. While Greenfield Village's programming continues to face the funding and staffing problems that plague living history programs nationwide, its story should remind scholars that nostalgia and antiquarianism are not problems inherent to living history.



Within the discipline of history, living history interpretation occupies a unique place as one of the most recognizable yet understudied forms of history education.<sup>28</sup> At open-air history museums across the country, including Colonial Williamsburg, Plimoth Plantation, Old Sturbridge Village, Conner Prairie, and Greenfield Village, costumed educators interact with the public in formal and informal settings by leading tours, demonstrating historical crafts, and reenacting events. These programs are iconic in the American historical imagination but have attracted little formal recognition from public history scholars.

The portrait that emerges from a review of academic literature concerning living history interpretation is largely pessimistic. Nearly all studies acknowledge that living history offers opportunities for audience engagement and participatory experiences that remain unmatched by other educational techniques. Early studies nearly unanimously applauded the possibilities for the interpretation of “bottom-up” social history inherent in recreating the daily environments of everyday people.<sup>29</sup> However, more recent scholars also express deep reservations about the historical accuracy and integrity of the material interpreted at such sites.<sup>30</sup> Working museum educators and interdisciplinary scholars – such as those coming from anthropology or performance studies – tend to express more comfort in the ambiguity inherent in the informal interactions of staff and visitors.<sup>31</sup> Academic historians, by contrast, are far more concerned by the potential

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<sup>28</sup> While some practitioners use the phrase “living history” to denote hobby reenactors, who have no ties to formal training or educational institutions, this paper will use the term exclusively to refer to professional educators, whether full-time or seasonal, who work at cultural history parks and museums.

<sup>29</sup> See Richard Handler and Eric Gable, *The New History in an Old Museum: Creating the Past at Colonial Williamsburg* (Durham, NC: Duke University Press, 1997); Jay Anderson, *Time Machines: The World of Living History* (Nashville, TN: The American Association for State and Local History, 1984); Warren Leon, “A Broader Vision: Exhibits That Change the Way Visitors Look at the Past,” in *Past Meets Present: Essays about Historic Interpretation and Public Audiences*, ed. Jo Blatti (Washington, DC: Smithsonian Institution Press, 1987).

<sup>30</sup> See Seth C. Bruggeman, *Here, George Washington Was Born: Memory, Material Culture, and the Public History of a National Monument* (Athens: The University of Georgia Press, 2008); Anders Greenspan, *Creating Colonial Williamsburg* (Washington, D.C.: Smithsonian Institution Press, 2002); Warren Leon and Margaret Piatt, “Living-History Museums,” in *History Museums in the United States: A Critical Assessment*, ed. Warren Leon and Roy Rosenzweig (Urbana: University of Illinois Press, 1989).

<sup>31</sup> See Scott Magelssen, *Living History Museums: Undoing History Through Performance* (Lanham, MD: The Scarecrow Press, Inc., 2007); Scott Magelssen and Rhona Justice-Malloy, *Enacting History* (Tuscaloosa: The University of Alabama Press, 2011); Stephen Eddy Snow, *Performing the Pilgrims: A Study of Ethnohistorical Role-Playing at Plimoth Plantation* (Jackson: University Press of Mississippi, 1993).

perpetuation of misinformation and nostalgic views of the past by underfunded and untrained interpreters.

Of all American living history sites, Greenfield Village, in Dearborn, Michigan, is one of the most interesting. Founded by Henry Ford and opened in 1929, Greenfield Village consists of 90 acres of nearly 100 historic buildings, all moved to the site from around the country and reassembled in a vague village formation. Unlike Colonial Williamsburg, the site is not historically significant, and the village represents no single geographic location or time period. While in keeping with Ford's vision of celebrating small-town life and the humble origins of many great thinkers and innovators, this structure presents challenges for both the staff and the public to settle on a particular, interpretive theme. When combined with the more universal criticisms regarding training, equipment and messaging, these challenges make Greenfield Village a veritable microcosm of the strengths and weaknesses of living history interpretation.

While Greenfield Village's interpretive programming began as soon as the gates opened to Ford's guests in 1929, the village did not adopt its now-iconic living history programs until the early 1980s. For this reason, Greenfield Village has escaped the academic attention received by Colonial Williamsburg. Academic examinations of the site either end with Ford's death or focus exclusively on the preservation of individual buildings. Jessie Swigger's 2014 study, *"History is Bunk": Assembling the Past at Henry Ford's Greenfield Village*, provides an excellent, in-depth case study of Greenfield Village as an institution.<sup>32</sup> Swigger traces the Village's growth from Ford's brainchild to a history "attraction" on par with Colonial Williamsburg. However, Swigger's focus is on the relationship between park administration and academic historians. Due to the preservation of extensive visitor surveys preserved at the Edison Institute, Swigger was able to include much more of the visitor's perspective and reaction to the interpretation, but the public she was most concerned with was the local population of Dearborn, Michigan. In contrast to Swigger's work, this paper attempts to analyze the methods by which village staff incorporated recent scholarship: namely, the training and equipping of interpreters and the adoption of living history techniques.

Ford's vision for Greenfield Village is a study in contradictions; it is both an endorsement of the strengths of living history interpretation and an example of its weaknesses. After fifty years of directionless interpretation, Greenfield Village finally embraced living history in the early 1980s, at the very period when practitioners were working to reclaim the technique from nostalgic reenactors and

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<sup>32</sup> Jessie Swigger, *"History is Bunk": Assembling the Past at Henry Ford's Greenfield Village* (Amherst: University of Massachusetts Press, 2014).

antiquarians. Greenfield Village's story demonstrates that it is not living history alone that is beset by untrained staff, nostalgic obsession, and misinformation and that the strengths first identified by scholars in the 1980s can still overcome those weaknesses.

### Ford's Vision

While now more commonly known independently by their separate names, The Henry Ford Museum and Greenfield Village are actually part of the same entity, the Edison Institute. Named for Ford's dear friend, Thomas Alva Edison, the Institute was intended to resemble three gears with interlocking teeth: an indoor museum of design and technology, an outdoor museum displaying how those technologies were used in everyday life, and a school system, modeled on Ford's own one-room schoolhouse education.

Ford particularly believed in the preservation of birthplace and residential sites. His first experiments with historic preservation and education began in 1919 when he saved his childhood home from the pathway of a new road by moving it two hundred feet. This, however, was no mere rescue mission; soon, Ford was recreating the home's original windmill, sweeping the property for material culture and refurbishing the interior according to his childhood memories.<sup>33</sup>

Ford's approach to historic preservation was not unique.<sup>34</sup> While its philosophy changed throughout the late nineteenth century, the historic house movement was a ubiquitous American phenomenon. The most famous and influential preservation project was the Mount Vernon Ladies Association, founded in 1853; other homes of the "founding fathers" attracted similar levels of interest as America celebrated its centennial. By the turn of the century, Progressive Party activists emphasized the traditional American home as a method of assimilating Eastern European immigrants to American domestic life.<sup>35</sup> Ford had more in common with these Progressives than the Mount Vernon Ladies Association. The birthplaces and residences Ford wanted to preserve were not the palaces of so-called "great men." Rather, Ford wanted to celebrate the humble origins of a new class of great men – the inventors, makers, and doers he believed were driving America forward.<sup>36</sup>

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<sup>33</sup> Swigger, 28.

<sup>34</sup> See Seth Bruggeman, *Born in the U.S.A.: Birth, Commemoration, and American Public Memory* (Amherst: University of Massachusetts Press, 2012).

<sup>35</sup> Swigger, 29.

<sup>36</sup> Henry Ford Museum Staff, *Greenfield Village and the Henry Ford Museum* (New York: Crown Publishers, Inc., 1972), 6.

The perception that Ford was ignorant of American history is widespread, which is based primarily on his famous proclamation that “history is more or less bunk,” reported by the *Chicago Tribune* in 1916.<sup>37</sup> In the resulting libel case against the *Tribune*, Ford’s abysmal performance on American history questions supported claims that he was deeply uneducated. As Ford doggedly explained for years after the trial, he only objected to history as it was then written and practiced, which excluded the histories of agriculture, technology, invention, and, most importantly, the common man. It is possible to see Ford as a burgeoning social historian who believed that the built environment, material culture, and lived experiences of everyday people warranted the same historical study as leaders like George Washington and Thomas Jefferson.

On the other hand, the history that Ford sought to write instead was no less nostalgic or antiquarian. In his study of Ford’s public image, David E. Nye wrote, “The single most important function of [Ford’s project], however, was to reassure Americans that industrialism was in fundamental harmony with their vision of a developing pastoral utopia.”<sup>38</sup> By filling Greenfield Village with both industrial buildings, like the reconstructed Menlo Park laboratory complex and earlier, more pastoral structures with clear links to American popular culture, like the Wayside Inn of Longfellow’s poetry, Ford created a world in which these two ideals of progress and nostalgia could exist simultaneously.<sup>39</sup> Slowly, Ford’s collecting became a mania, including buildings and all their furnishings. Ford even turned down an opportunity to work at Colonial Williamsburg on the same sort of preservation project, believing that the complete freedom from geographic and temporal constraints at Greenfield Village would allow him “to reconstruct the past on his own terms.”<sup>40</sup> By 1925, the plan for the Edison Institute was clearly formed, and, in 1929, it was formally christened by Edison himself.

Although technically open, the museum and the village were both unfinished and, barring special permission, remained closed to visitors until 1933. The visitors who were admitted were not allowed to wander the village on their own, as visitors do today. Instead, in groups of 25, they were led by student guides from the Henry Ford Trade School or local high schools. After the museum and village opened to all visitors in 1933, this group of 150 guides became much more formalized. Guides were assigned to sections of the village

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<sup>37</sup> Swigger, 27.

<sup>38</sup> David E. Nye, *Henry Ford: “Ignorant Idealist”* (Port Washington, NY: Kennikat Press, 1979), 4.

<sup>39</sup> Swigger, 30.

<sup>40</sup> Swigger, 35.

and were responsible for learning the assigned material for those buildings.<sup>41</sup> Early manuals for this first group of guides emphasize, with almost spiritual reverence, the presence of Ford and Edison. For example, the 1929 manual for the Menlo Park area describes the original objects within the buildings as authentic “relics” and emphasizes that they have been placed “in approximately the same places they occupied when used by Mr. Edison.”<sup>42</sup> By the early 1930s, park staff were beginning to write manuals for each individual building or cluster of buildings in the village, distributing one manual to the guide, keeping one in the museum library, and one in the building for reference. Some of these manuals included floor plans and anecdotal information about the artifacts in the buildings and how they were used.<sup>43</sup>

While Ford envisioned the village as the place to see the artifacts exhibited in the museum in use, guides at Greenfield Village did not actually employ living history techniques until the early 1980s. The closest that early village interpretation came to living history was in the crafts demonstration area. William A. Simonds, Manager of Guides and Public Relations, wrote that “these shops revive industries that are fast vanishing from the American scene. Others combine crafts with commerce, or commemorate a historical personage.”<sup>44</sup> Students at the Edison Institute schools were given hands-on lessons in agriculture at the village’s working farms, but these demonstrations and experiences were not open to visitors.<sup>45</sup>

The guide manuals from this early period reflect Ford’s ambivalence towards the professional standards of the museum field. Unlike the Colonial Williamsburg Foundation, Ford did not hire professional architects to move or restore the buildings he brought to Greenfield Village. Likewise, the only guides at the village with professional experience were the crafts demonstrators. Guide

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<sup>41</sup> Geoffrey C. Upward, *A Home for Our Heritage: The Building and Growth of Greenfield Village and Henry Ford Museum, 1929-1979* (Dearborn, MI: The Henry Ford Museum Press, 1979), 76-77, 89.

<sup>42</sup> “E.I.T. and Village Guide Book; ca. 1929,” Box 1, accession no. 141, “Guide Reference Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>43</sup> “Cotswold Group, ca. 1936,” Box 1, accession no. 141, “Guide Reference Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>44</sup> William Adams Simonds, *Henry Ford and Greenfield Village* (New York: Frederick A. Stokes Company, 1938), 189.

Later guide manuals, like the 1966 Guide Reference Manual for the Village Tour, stipulate that interpretation of machinery, equipment or workshops (i.e. the blacksmith’s forge) is left to the craftsperson alone, unless they are not present. The reader presumes that this interpretation would be verbal and not demonstrative. “Village Tour, 1966,” Box 13, accession no. 141, “Guide Reference Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>45</sup> Simonds, *Henry Ford and Greenfield Village*, 90.

manuals do not describe the actual practice of guiding and talking to visitors until the late 1930s. Nevertheless, those manuals' instructions are surprisingly aligned with modern interpretation standards. For example, the following introduction, standard in manuals of the 1930s and early 1940s, emphasizes the enthusiasm and flexibility of the guide:

This talk is not intended to be memorized and given before each group; rather it is to guide you in organizing your own talk from the material presented. To keep your talk interesting, you must be interested in what you are saying. Keep your interest fresh by rearranging and reorganizing your talk frequently – use new phrases and new material. On later pages you will find other representative talks by former guides.<sup>46</sup>

Decades before professional interpreters recommended using a fundamentally different approach with groups of children, Greenfield Village manuals differentiated between tours for adults and for children of different age groups.<sup>47</sup> After the late 1930s, guide manuals also ended with a short quiz for guides to test their own knowledge and a signature sheet to certify that they had passed the quiz before working in the building.<sup>48</sup> Women's names do not appear on these signature sheets until the mid-1940s; both Henry and Clara Ford resisted using female guides as they were concerned about fraternization among young men and women.<sup>49</sup> Perhaps they should have been more concerned about boredom among the guides, as several manuals served instead as scorecards for regular poker tournaments.<sup>50</sup>

Overall, the material these guides presented did not change substantially during Ford's lifetime. Manuals were often accompanied by "supplements," which were essentially scrapbooks with newspaper clippings documenting the building's move, reconstruction, and dedication, but these were the only additions

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<sup>46</sup> "Ceramic Shop, 1937," Box 1, accession no. 141, "Guide Reference Manuals," Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>47</sup> "Chapel, Suwanee, Scotch Settlement, and McGuffey Group; 1937," Box 1, accession no. 141, "Guide Reference Manuals," Edison Institute Records, Benson Ford Research Center, Dearborn, MI; Freeman Tilden, *Interpreting Our Heritage*, 4<sup>th</sup> ed. (Chapel Hill: The University of North Carolina Press, 2007), 76-85.

<sup>48</sup> Ibid.

<sup>49</sup> Upward, *A Home for Our Heritage*, 76-77.

<sup>50</sup> "Currier Shoe Shop; 1939," Box 5, accession no. 141, "Guide Reference Manuals," Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

to the manuals.<sup>51</sup> With Ford so close to the heart of both interpretive techniques and content, his death in 1947 substantially destabilized Village programming and leadership for the next few decades.

### **Life after Ford**

Far away from Dearborn, Michigan, important changes were afoot for the burgeoning profession known as interpretation. In 1941, writer Freeman Tilden met Newton Drury, the director of the National Park Service. Impressed, Drury named Tilden an administrative assistant and charged him with developing guidelines for public relations and interpretation for the park service.<sup>52</sup> Tilden produced reams of thoughtful material under Drury's guidance, including essays on conservation and pamphlets designed to attract donors. The next director, Conrad Wirth, had larger plans for Tilden and the park service. Wirth believed that interpretation "was at the very heart of the parks' preservation and protection mandate," and assigned Tilden with the task of studying and improving current practices.<sup>53</sup> The manuscript that emerged, *Interpreting Our Heritage*, was recognized as the "Bible" of the fledgling profession almost immediately.

In *Interpreting Our Heritage*, Tilden described six principles of good interpretation. These principles emphasize the interpreter as a conduit of communication, rather than an encyclopedia of facts. An interpreter's job, according to Tilden, is to connect a visitor to the resource at hand until they come to understand it and protect it of their own accord. Visitor experience is therefore just as important as the preservation of the resource. Tilden's principles emphasize personal connection, the joy of discovery and understanding, and the importance of provocation over education.

Meanwhile, after Ford's death, administrators at Greenfield Village were struggling to find their feet in a museum studies field that was growing increasingly professionalized and authoritative.<sup>54</sup> During his 1951 visit, the Colonial Williamsburg administrator, Allston Boyer, identified the site's weaknesses: Ford's eclectic vision for the village was not coherent, and rearranging the site would be prohibitively expensive. Boyer suggested that interpretation should focus tightly on Ford as the common thread; that more and better-trained staff members needed to be hired; and that Greenfield Village needed to expand its offerings – both educational and recreational – in order to

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<sup>51</sup> "Wright Brothers Bicycle Shop; ca. 1938," Box 5, accession no. 141, "Guide Reference Manuals," Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>52</sup> Tilden, *Interpreting Our Heritage*, 6.

<sup>53</sup> *Ibid.*, 8.

<sup>54</sup> Swigger, "*History is Bunk*," 103.

attract a new and larger audience.<sup>55</sup> Village events began in 1951, which included the Country Fair of Yesteryear, the Old Car Festival, the Greenfield Village Turkey Shoot, and a reenactment of the signing of the Declaration of Independence on the 175<sup>th</sup> anniversary.<sup>56</sup>

This reorientation toward friendly and entertaining educational programming changed the duties of the village guides. Large, conducted tours met at the entrance to Greenfield Village, where the guide began with a “dispatch talk,” which asked guests to “try to forget the hustle and bustle of the atomic age and return briefly to the simple, rugged life our forefathers knew.”<sup>57</sup> Village administration also began to professionalize the guide staff, urging them to take pride in their association with The Edison Institute and identify themselves as colleagues in the work of Ford and Edison themselves.<sup>58</sup>

However, the “guides” and “attendants” of Greenfield Village bore little resemblance to the interpreters Freeman Tilden was training for the National Park Service. The two-hour-long village tours were impersonal and offered no structured opportunities for visitor interaction. Occasionally, a guide manual might recommend pointing out a particular anecdote or artifact if the guide knew the group was from Detroit or Ohio, but they usually requested that guides follow the script down to the exact location to stand in each building.<sup>59</sup> The 1966 manual advised guides to “mention Edison statue only if asked or your group will scatter.”<sup>60</sup>

In the late 1970s, guide managers finally began to develop new programs and tours around specific interpretive themes. For a walking tour commemorating the 50<sup>th</sup> anniversary of the 1929 Light’s Golden Jubilee dedication, guides led visitors through the village, demonstrating the development of lighting technology from the colonial period to the twentieth century. This use of an interpretive theme to unite a cohesive and accurate historical narrative with Ford’s early vision for the park exemplified contemporary standards of good interpretation.

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<sup>55</sup> Swigger, 103, 107.

<sup>56</sup> Upward, *A Home for Our Heritage*, 132, 140.

<sup>57</sup> “Village Tours, 1945,” Box 8, accession no. 141, “Guide Reference Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>58</sup> “Greenfield Village Attendant Instruction Book; ca. 1948,” Box 8, accession no. 141, “Guide Reference Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>59</sup> “Village Tour; 1963,” Box 12, accession no. 141, “Guide Reference Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>60</sup> “Village Tour; 1966,” Box 13, accession no. 141, “Guide Reference Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI; “Village Tour, 1968,” Box 14, accession no. 141, “Guide Reference Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.



However, the tour relied on non-costumed guides, a lecture format, and limited interactive demonstrations.<sup>61</sup>

Administrators were starting to get curious about visitor preferences and experience in the 1960s and 1970s and rolled out annual visitor surveys during that period. Particularly in the wake of the 1967 Detroit riots, administrators believed that Detroit's reputation was a significant barrier to attracting visitors from out of town.<sup>62</sup> Throughout the surveys, visitors consistently expressed more interest in the residential buildings than the industrial ones and made frequent comparisons to other outdoor living history museums like Colonial Williamsburg and Old Sturbridge Village. Village historian Jessie Swigger summarized:

Visitors also characterized their educational experience based on the appearance of guides and staff. They often encouraged staff to adopt more of a living-history approach. One wrote: 'I think if the guides wore period costumes they would give you more of a feeling that you were back then. Even though your exhibits are from different eras, I would love to see clothing of the different periods.' [...] In general, visitors defined the ideal educational experience as one that re-created an atmosphere of the past.<sup>63</sup>

Park administrators were listening. As Bicentennial fervor died down, Greenfield Village began to invest heavily in its most ambitious interpretive project yet.

### **Back to the Future**

By the time Greenfield Village responded to this pressure to provide an immersive, interactive visitor experience, living history interpretation was a long-established technique in practice at Colonial Williamsburg, Plimoth Plantation, and Old Sturbridge Village, among others.<sup>64</sup> In Michigan, there were two other historic sites employing living history on a large scale: Mackinac State Historic Parks (MSHP) and Crossroads Village. At MSHP, living history interpretation began in 1958 with costumed interpreters leading visitors through

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<sup>61</sup> "Anniversary Tour, 1979," Box 16, accession no. 141, "Guide Reference Manuals," Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>62</sup> Swigger, 118.

<sup>63</sup> Swigger, 136-137.

<sup>64</sup> Jaclyn Millichamp, "Mediated Histories: Representations of Nineteenth-Century American Life at Greenfield Village and Crossroads Village" (master's thesis, Wayne State University, 2014), 12-30. This thesis, while a valuable comparison of the founding principles of the two villages, does not discuss programming or interpretation at either site.

Fort Mackinac, demonstrating musket- and cannon-firing procedures.<sup>65</sup> However, MSHP was not a nineteenth-century village site and did not interpret agricultural or industrial history. Just seventy miles north of Dearborn, however, Genesee County Parks and Recreation managed a new site, Crossroads Village and Huckleberry Railroad, which depicted a small, agricultural village of the nineteenth century using living history.

Proposed in 1968 by the Flint Farmers Club, Crossroads Village's vision was quite similar to that of Greenfield Village and Ford. By assembling a village from buildings throughout the county, park staff could represent the agricultural beginnings of Flint, early industries (especially lumber), and the roots of General Motors. In 1973, the project was designated as the official bicentennial project for the city, a designation which secured significant funding from the Mott Foundation. The two sites shared a strong physical resemblance and an emphasis on the interpretation of transportation, especially after Crossroads Village acquired a narrow-gauge railroad that ran through the village and a paddleboat on nearby Mott Lake.<sup>66</sup>

The programming at Crossroads Village was an inspiration for new interpretive practices at Greenfield Village, as shown by the minutes, memos, and correspondence of the living history investigation committee (known as the "Domestic Activities Task Force"). For example, on August 25, 1981, Candace T. Matelic, manager of Interpretive Programs at Greenfield Village, sent out a call for staff members interested in traveling to Crossroads Village to meet with their director, Dennis Zawol. This investigatory trip truly marked the beginning of living history programming at Greenfield Village.

For most of the twentieth century, interpretation (under many other names) had proceeded at Greenfield Village without any connection to the best practices of this growing field. Matelic's presence at the Village, however, marked a new shift in interpretation. Well-trained with several years of experience at Iowa's Living History Farms, Matelic was deeply familiar with the existing literature and had even published herself on living history museums throughout America and Europe. Interpreter manuals under Matelic's direction finally mentioned Tilden's principles and referenced publications by leading living history scholar, Jay Anderson. Each manual included a suggested bibliography for further reading, which listed new periodical publications and conference presentations from the Organization of American Historians (OAH), the Association for Farm, Living History and Agricultural Museums (AFLHAM), and

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<sup>65</sup> David A. Armour, *100 Years at Mackinac: A Centennial History of the Mackinac Island State Park Commission, 1895-1995* (Mackinac Island, MI: Mackinac State Historic Parks, 1995).

<sup>66</sup> Millichamp, "Mediated Histories," 54-63.

the American Association for State and Local History (AASLH).<sup>67</sup> Matelic's planning committee was determined to use living history scholarship to combat the nostalgia in both Ford's vision and the visitors' expectations. In a planning document titled, "Domestic Life as an Interpretive Theme," they argued:

Many visitors arrive with preconceived notions about what life was like 'back then in the good ole days', referring to the continuum of 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> century life in the entire United States. Concepts such as time, regional influences, and variations in lifestyle based on occupation or economics are difficult to communicate. It is also tempting for visitors and us to over simplify and romanticize domestic life, especially through the site itself. It does not help that there are oodles of 'cutesy' 'period' domestic restorations and recreations around the country. [...]  
We encounter many of these problems with the domestic structures in Greenfield Village as presently furnished. Yet this situation can be corrected.<sup>68</sup>

By early 1982, the Crossroads Village field trip and staff discussions birthed a tentative plan, which was known in park correspondence as the "Edison/Saltbox Project." The Edison Homestead (home of Thomas Edison's grandparents) and the Saltbox House (an eighteenth-century New England farm now known as the Daggett Farm) would become living history sites, staffed by costumed interpreters demonstrating foodways and handcrafts appropriate to their era. This new program would have a new interpretive theme: "Domestic Life."

In DOMESTIC LIFE we find a common denominator with our visitors regardless of age, background, sex or race – that shared common experience which can serve as an interpretive communication base. In this sense, it is an easy place to start to interpret one modernization story. [...] We can explore the social consequences of technological progress and mechanization through the changes that occurred in the daily, weekly and seasonal routine of a household. WE can address how these changes affected the roles of men, women, parents and children.<sup>69</sup>

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<sup>67</sup> "Domestic Activities Manual 1982 (1 of 3)," Box 2, accession no. 168 "Interpreter Manuals," Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>68</sup> Ibid.

<sup>69</sup> "Domestic Activities Manual 1982 (1 of 3)," Box 2, accession no. 168 "Interpreter Manuals," Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

The Edison and Saltbox homes were chosen because it was possible to interpret them in eras one hundred years apart: 1769 and 1869. Finally, the eclecticism of Ford's vision would instead be a meaningful contrast that had an educational purpose. The depiction of the forward march of technology and progress he envisioned could serve an appropriate, well-researched interpretive theme.

Adopting a living history program like the Edison/Saltbox Project was no easy task. The committee chose a core group of 20-25 interpreters to be fitted for costumes, trained in domestic demonstrations, and to adopt a far different type of interpretation than they were used to. Interpreters and "crafts staff" would be trained for both the Edison and Saltbox homes to familiarize them with the similarities and differences between the two houses, which formed the core of their interpretive theme. "Activating" the houses also involved the Maintenance and Grounds department, and the task force prepared for what they called "major negotiations" over building adaptations. For example, were furniture and artifact reproductions necessary or could originals be retained? What barriers could come down in exhibits? How much could visitors touch? Where were modern conveniences like refrigerators and telephones needed? What must remain hidden from visitors?<sup>70</sup>

Training for this special team was done in May and June of 1982, and the team met regularly with Matelic to evaluate the program. Costuming, always a major concern in living history due to both its power in interpretation and its financial demands for purchasing and maintenance, was the subject of a June 24 memo to staff: "With regards to clothing, make sure anything you wear is from period clothing [a department of the Edison Institute] and is right for that house. Please don't wear aprons or other articles of clothing of your own or from another project. At the end of the day, make sure you leave the aprons at the site since there is currently a shortage."<sup>71</sup> The staff meeting agenda from July 8 asked for a discussion of new approaches to cooking demonstrations, daily chore assignments, and staff scheduling. By the September 10 meeting, the team began evaluating the program from both staff and visitor viewpoints, planning for autumn craft workshops, and putting together recommendations for the 1983 season.<sup>72</sup>

Self-reflection, current scholarship, and off-site visits were constant themes of the early years of Greenfield Village's living history program. The 1983 manual incorporates Tilden's principles, guidelines for historic sites from

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<sup>70</sup> "Domestic Activities Manual 1982 (1 of 3)," Box 2, accession no. 168 "Interpreter Manuals," Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>71</sup> Ibid.

<sup>72</sup> Ibid.

AASLH, discussions of communication theory and visitor needs, and worksheets for interpreters to practice developing themes on their own.<sup>73</sup> 1983 also marked the introduction of a staff newsletter called “Modern Times.” The February 1983 issue describes an “interpreter training trip” the team took the previous November to Colonial Williamsburg. There the group split into groups focusing on different aspects of living history: crafts programs, period clothing, first-person techniques, and agriculture. Throughout subsequent issues of “Modern Times,” each smaller group wrote a report to the team on what they had learned from working with and interviewing Colonial Williamsburg staff. The Domestic Life group summed up their report by writing, “Team members agreed the trip offered an excellent opportunity to gather new ideas and to rediscover previously overlooked strengths in our own program.”<sup>74</sup> Meanwhile, the interpreter library continued to grow with new publications regarding historic crafts, clothing, and interpretive techniques.<sup>75</sup> The 1984 Introductory Manual noted that all interpretive material would be in line with the Edison Institute Curriculum Committee Report of 1981 and that “All [historical] information will be based on the most up-to-date research and documentation available; references to contributing sources will be included as necessary and/or appropriate; all material presented here will be passed on to the curatorial department for approval before printing.”<sup>76</sup>

This rigorous study laid the groundwork for the most important development in Greenfield Village’s living history interpretation program: the donation, move, restoration, and interpretation of the Firestone Farm. Now the centerpiece of the Village’s “Working Farms” Historic District, the Firestone Farm was first introduced in 1983 as an incoming gift. In March 1983, staff member Peter Cousins noted, “We are hoping that ways will be found to interpret that process [the move of the farm] by inviting each of our 1984 visitors to become a ‘sidewalk superintendent’ on the project.”<sup>77</sup> In the interpreter manual in use from 1987-1990, programming at the farm is described thus: “On a seven-acre chunk of Greenfield Village, two horses, six head of cattle, 40 sheep and costumed interpreters recreate the activities of 19<sup>th</sup>-century farmers Benjamin and

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<sup>73</sup> “Introductory Manual Spring, 1983 (2<sup>nd</sup> Revision) (1 of 2),” Box 3, accession no. 168 “Interpreter Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>74</sup> Ibid.

<sup>75</sup> “Interpretation articles – 1983,” Box 3, accession no. 168 “Interpreters/Presenters Training Manuals and Materials,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>76</sup> “Introductory Manual Feb-May 1984 (4<sup>th</sup> and 5<sup>th</sup> Revision) (1 of 2),” Box 4, accession no. 168 “Interpreter Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>77</sup> “Introductory Manual Spring, 1983 (2<sup>nd</sup> Revision) (1 of 2),” Box 3, accession no. 168 “Interpreter Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

Catherine Firestone. The living history program at the Firestone Farm reproduces—from shoveling manure to hoeing corn and baking pies—the everyday life of a working farm of the early 1880s.”<sup>78</sup> Sometime in the mid-1990s, the Firestone Farm totally replaced the Edison homestead as the focus of 19<sup>th</sup>-century living history at the village. While it’s not clear from archival material when that shift took place, it is clear that the development of the farm property, the purchase and care of livestock, and the training of staff in new domestic skills represent a major investment by Greenfield Village administrators and likely limited the village’s overall capacity to support living history in other buildings.<sup>79</sup>

### Today’s Village

Interpreters working today at Greenfield Village still struggle with the legacy of the site’s founder, Henry Ford, and his vision for what the village could be. For example, the appendix of Frequently Asked Questions in the Historic Presenter Training Manual for the Ford home offers suggestions for dealing with visitor questions about Ford’s well-known anti-Semitism:

We’re sorry to say that this was indeed true, although he did have some Jewish colleagues that he respected. [...] Henry Ford had an utterly crazy belief in a Jewish conspiracy to take over the world. [...] Even in his own day, Ford’s ideas never really took hold in the United States. Henry Ford’s son and grandson did much to transform Ford Motor Company into a more tolerant organization, and to establish ties with the Jewish community. But unfortunately this legacy lives on. Today this kind of behavior by someone of Henry Ford’s stature would be highly inconceivable.<sup>80</sup>

Ford’s privileging of the stories of innovative white men in choosing the buildings he moved to Greenfield Village also presents a challenge. Initially, Ford collected the Hermitage plantation’s slave cabins as a novelty. He considered the slave

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<sup>78</sup> “Interpreter/Presenter Training Manuals and Material – 1987-1990,” Box 4, accession no. 168 “Interpreter Manuals,” Edison Institute Records, Benson Ford Research Center, Dearborn, MI.

<sup>79</sup> The number of interpreter manuals collected by the Edison Institute archives taper off through the 1980s and stop completely in the 1990s. Current interpreter manuals are available in the interpreter library at the Benson Ford Research Center, but the gap from the late 1980s through the 2000s complicates the tracking of the living history program through that period.

<sup>80</sup> “Historic Presenter Training Manual – Ford Home,” Interpreter Library, Benson Ford Research Center, Dearborn, MI.

cabins significant only because they were built of brick, and therefore more comfortable than quarters on other plantations. Today, the Hermitage cabins are viewed as a “sensitive” site for interpretation, partly because they do not fit the mold of the other buildings Ford collected. They are not interpreted with living history techniques like the nearby Susquehanna plantation: one cabin is inconsistently staffed by non-costumed volunteers, and the other employs a pre-recorded sound system.<sup>81</sup>

Outside the crafts demonstration area, which is still a major emphasis in the interpretation of industry at the village, the majority of living history is done within a group of buildings designated as “Foodways and Domestic Life Programs.” These buildings include the Daggett Farmhouse (formerly known as the Saltbox), Edison Homestead, Ford Home, Firestone Farm, and Giddings Family Home.<sup>82</sup> Period clothing guidelines are in place for the Firestone Farm, J.R. Jones General Store, Cohen’s Millinery, and Daggett Farm, but are lax for pieces that are notoriously expensive or heavy-wearing for living history interpreters: namely footwear, stockings, and eyeglasses.<sup>83</sup> Not every building designated as “staffed” has an interpreter every day. Rather, Greenfield Village heavily relies on the availability of volunteers and part-time employees.<sup>84</sup>

While the Firestone Farm is not the only building within Greenfield Village that utilizes living history interpretation, it is the most famous and the most consistently staffed. In descriptions of the village, the farm is used synonymously with living history or to stand for the village in general.<sup>85</sup> The manual for the farm emphasizes the connection of the programming there to the mission of the Edison Institute, and the privileging of interpretation over the daily chores and demands of farm work:

...at The Henry Ford, we address the stories that matter in people’s lives. We help people understand that they are a part of a dynamic history, a history that, everyday [sic], they help shape and develop. We strive to inspire, challenge, and entertain our visitors. On Firestone Farm, we uphold these principles. We engage and inspire every visitor, regardless of circumstances. Yes, Firestone

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<sup>81</sup> “Hermitage Presenter Training Manual,” Interpreter Library, Benson Ford Research Center, Dearborn, MI.

<sup>82</sup> “Edison Homestead Training Manual,” Interpreter Library, Benson Ford Research Center, Dearborn, MI.

<sup>83</sup> “Historic Presenter’s Period Clothing Guidelines GV/HRM,” Interpreter Library, Benson Ford Research Center, Dearborn, MI.

<sup>84</sup> “Volunteer Manual,” Interpreter Library, Benson Ford Research Center, Dearborn, MI.

<sup>85</sup> Paul Cohen and Brenda Cohen, “Greenfield Village and the Henry Ford Museum,” *Journal of College Science Teaching* 22, no. 3 (Dec 1992/Jan 1993), 199.

Farm is a working farm, and yes, we have work that must be done. Animals must be fed. The chicken coop must be cleaned. However, none of this work matters if we're not talking to the visitors. Presenting is our first and most important job on the Farm. If you burnt all of dinner black and it took you an hour to milk the cow, the day is still a success if you welcomed and inspired every visitor that walked onto the site.<sup>86</sup>

While this introduction captures the enthusiasm and excitement of the very first living history team in 1982, it nevertheless separates the work of living history from engagement with the visitors, where once they were inseparable elements of the communication process. It is this separation that causes living history techniques to seem like a gimmick or play rather than a tool. The Firestone Farm's notoriety has enormous potential to publicize the effectiveness of living history, but this programming must return to the scholarship it believed to be viable in the first place.

### **Conclusion**

Ford's vision for Greenfield Village presents a conundrum to any museum professional or public historian working today. On the one hand, Ford dreamed of an open-air museum that would represent the built environment, material culture and daily life of the average American citizen, an approach that is still acknowledged today as the greatest strength of open-air history museums. On the other hand, Ford's vision privileged the stories of white men who rose from humble beginnings to achieve greatness, many of whom were close personal friends. The very eclectic nature of Greenfield Village ensures that all cohesive interpretive themes must still relate somewhat to Ford's vision and worldview, rather than the daily life he sought to preserve. This nostalgic, patriotic, and paternal narrative represents the greatest weakness most often identified at open-air history museums.

However, the history of interpretive programming at Greenfield Village demonstrates that these weaknesses are not due to the use of living history programming, as academic historians often insist. They existed well before living history interpretation was implemented at the village. Well-educated and trained park staffers saw living history as the solution to these problems and to finally find a way to unify Greenfield Village's unique structure under a cohesive and

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<sup>86</sup> "Firestone Farm Domestic Programs Training Manual," Interpreter Library, Benson Ford Research Center, Dearborn, MI.



effective interpretive theme. The 1982 implementation of the Edison/Saltbox project was a direct response to the most current scholarship on museum education and represented a continued dialogue with other open-air history museums. While living history interpretation has decreased in size and professionalism at the site, the Firestone Farm remains arguably the most recognizable and popular attraction at the village. Greenfield Village's programming continues to face the funding and staffing problems that plague living history programs nationwide; its story should remind scholars that nostalgia and antiquarianism are not problems inherent to living history. Living history was once seen as a solution to those problems at Greenfield Village and it can be again with the same dedication to collaboration, investment, and training.

## Bibliography

### Primary

“Current Interpreter Manuals,” Interpreter Library. Benson Ford Research Center. Dearborn, MI.

“Guide Reference Manuals,” accession no. 141. Edison Institute Records. Benson Ford Research Center. Dearborn, MI.

The Henry Ford Museum Staff. *Greenfield Village and the Henry Ford Museum*. New York: Crown Publishers, Inc., 1972.

“Interpreter Manuals,” accession no. 168. Edison Institute Records. Benson Ford Research Center. Dearborn, MI.

Simonds, William Adams. *Henry Ford and Greenfield Village*. New York: Frederick A. Stokes Company, 1938.

Upward, Geoffrey C. *A Home for Our Heritage: The Building and Growth of Greenfield Village and Henry Ford Museum, 1929-1979*. Dearborn, MI: The Henry Ford Museum Press, 1979.

### Secondary

Anderson, Jay. *Time Machines: The World of Living History*. Nashville, TN: The American Association for State and Local History, 1984.

Armour, David A. *100 Years at Mackinac: A Centennial History of the Mackinac Island State Park Commission, 1895-1995*. Mackinac Island, MI: Mackinac State Historic Parks, 1995.

Blatti, Jo, ed. *Past Meets Present: Essays about Historic Interpretation and Public Audiences*. Washington, D.C.: Smithsonian Institution Press, 1987.

Bruggeman, Seth. *Born in the U.S.A.: Birth, Commemoration, and American Public Memory*. Amherst: University of Massachusetts Press, 2012.

Bruggeman, Seth C. *Here, George Washington Was Born: Memory, Material Culture, and the Public History of a National Monument*. Athens: The University of Georgia Press, 2008.

- Cohen, Paul and Brenda Cohen. "Greenfield Village and the Henry Ford Museum." *Journal of College Science Teaching* 22, no. 3 (Dec 1992/Jan 1993): 198-199.
- Donnelly, Jessica Foy, ed. *Interpreting Historic House Museums*. Walnut Creek, CA: AltaMira Press, 2002.
- Greenspan, Anders. *Creating Colonial Williamsburg*. Washington, D.C.: Smithsonian Institution Press, 2002.
- Handler, Richard and Eric Gable. *The New History in an Old Museum: Creating the Past at Colonial Williamsburg*. Durham, NC: Duke University Press, 1997.
- Leon, Warren and Roy Rosenzweig, eds. *History Museums in the United States: A Critical Assessment*. Urbana: University of Illinois Press, 1989.
- Magelssen, Scott. *Living History Museums: Undoing History Through Performance*. Lanham, MD: The Scarecrow Press, Inc., 2007.
- Magelssen, Scott and Rhona Justice-Malloy. *Enacting History*. Tuscaloosa: The University of Alabama Press, 2011.
- Millichamp, Jaclyn. "Mediated Histories: Representations of Nineteenth-Century American Life at Greenfield Village and Crossroads Village." MA Thesis, Wayne State University, 2008. ProQuest (UMI 1569868).
- Nye, David E. *Henry Ford: "Ignorant Idealist."* Port Washington, NY: Kennikat Press, 1979.
- Snow, Stephen Eddy. *Performing the Pilgrims: A Study of Ethnohistorical Role-Playing at Plimoth Plantation*. Jackson: University Press of Mississippi, 1993.
- Sward, Keith. *The Legend of Henry Ford*. New York: Rinehart & Company, Inc., 1948.
- Swigger, Jessie. "*History is Bunk*": *Assembling the Past at Henry Ford's Greenfield Village*. Amherst: University of Massachusetts Press, 2014.
- Tilden, Freeman. *Interpreting Our Heritage*. 4<sup>th</sup> ed. Chapel Hill: University of North Carolina Press, 2007.

# San Juan Mountains Outside of Silverton, Colorado<sup>87</sup>

*By Joy Kiefer*



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<sup>87</sup> I would like to thank Amy Lindenberger for her course instruction, instruction from her books on drawing with colored pencils, and her advice. You have encouraged me and broadened my skills as an artist.

# Flowers in a Wasteland 2

*By Elizabeth V. Netcher*



# Snowstorm in Southern Tlön

*By Joshua T. Parks*

Abstract: This is a wintry poem inspired by the nounless language of Jorge Luis Borges's fictional planet, Tlön. It describes a snowstorm using only verbal forms and function words. It also hints at the timelessness of Tlön's philosophical idealism and the tendency of nature to disregard human boundaries.

*There are no nouns in the conjectural Ursprache of Tlön, from  
which its 'present-day' language and dialects derive.*

Jorge Luis Borges<sup>88</sup>

Ensparkled and ensnared with the falling and the whirling,  
Glowing with brightened breathing, whitened gleaming,  
Dancing with dottings, it shivers, it roars.

Inside the everwarming, it is feared and beloved,  
Watched for snowstruck worsening, hoped in and faithed in,  
Promising first to amaze, then, embracing, to end.

Beyond, outblocked, it hells.  
It tricks and slicks, its blinding blowing banishes,  
Its frosty numbing ambushes.

But the blocking crumbles, or always has crumbled.  
The beloving and be-icing mingle and refreeze,  
The warming scattered, shared, and so lost.

Soon, the finding and refiring—but not reblocking.  
Rather the breathing, the falling and the whirling,  
Enchanted, encrystalled, ensparkled, ensnared.

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<sup>88</sup> Jorge Luis Borges, "Tlön, Uqbar, Orbis Tertius," in *Collected Fictions*, translated by Andrew Hurley (New York: Penguin, 1999), 73.

# **The Perfect Bubble**

*By Elizabeth Orwig*



This morning he told me to stop stressing out so much.

“Just sleep,” he had said. “Today is your day to relax.” I remember saying that I didn’t think I would be able to stop stressing out, especially with him being away. “Just pretend like I’m here. Just pretend it’s a regular Sunday morning, we don’t have to work. We can do whatever we want all day.” I smiled at him, grateful that he always had the ability to relax me, even for a moment. The window in our bedroom was tall and narrow, allowing a slip of sunlight to come in and dance off of our pale green walls. I closed my eyes and leaned back against him, savoring the moment.

It’s Tuesday, September eighth, and I’m still in my bed at nine in the morning. I roll over and grab my phone off of the nightstand beside me. The screen is so bright, but I can’t help but smile at the photo of us. His arms wrapped around me, my head against his chest, it was a perfect moment. I pressed my finger against the home button, unlocking the screen, and begin going through notifications. I had a lot of text messages this morning, more than usual.

*Mom: Good morning honey. I hope you’re doing okay today. If you need company just let me know, you shouldn’t be alone today.*

*Chelsea: Hey girl. I know today is gonna be hard, but I’m here for you.*

*Riley: Hey. If you need anything today let me know. I know I don’t live as close to you and mom anymore, but I’d come back for my little sister.*

*Marissa: Hey, are we still getting coffee today? I will get you out of that house, especially today!*

I couldn’t think of why they all seemed concerned, I mean, I guess I was kind of sad that Matthew was gone on a business trip, but that didn’t mean I needed people to treat me like this. I quickly responded to everyone, basically telling them that I was okay, thanks anyway. I told Marissa we could get coffee if she wanted, but that I felt nauseous this morning, which was only kind of a lie (I did feel a bit queasy for some reason). I pulled the lavender sheets back over my shoulders, they were silk because Matthew had insisted that I deserved nothing less.

I remember the day he bought them like it was yesterday: he had been angry with me because I had spent all day with Chelsea and hadn’t done his laundry in time for work the next day. He came home and immediately turned angry. My skin quickly became covered in goosebumps as I prepared for the angry, passive-aggressive Matthew I had come to know well. He announced that he was going to sleep on the couch to leave me to think about the “issues” I had, and how to be a better girlfriend. But, the next afternoon he came home with the silk sheets and told me that I was perfect and deserved nothing less. I knew that

because he bought me the sheets and said what he did, that I was forgiven. I just needed to try harder to be better. And I know I have been. I briefly wondered where our dog, Oliver, was. But before I could really question it I was lulled back to sleep.

It was eleven in the morning when I woke up again. This time, when I checked my phone I had only one notification, it was just a snapchat from Chelsea. I guess the rest of them decided to leave me alone, for the time being, anyway. Even though she hadn't left me a message, I had a feeling my mom would stop by regardless. I felt a tugging in my stomach, not quite a stomach ache, but nerves—the kind you get when you know you did something wrong. I thought about Matthew, I did that a lot whenever he wasn't around. It was weird that I hadn't heard from him yet today. I was about to check my text conversation with him, when I heard a banging on my door. I groaned, climbing out from underneath my sheets and blankets. I had on a white silk nightgown (Matthew insisted that I wear it. "White makes you pure," he'd said). It was chilly, so I grabbed my long-fuzzy-purple robe. I rushed to the door, again wondering where my dog was and why he wasn't running behind me. I looked through the peep-hole, and sure enough there was my mother. Sighing, I opened the door.

"Claudia! You still haven't gotten out of bed?"

"Hello to you too, mom."

She sighed, wrapping me into a hug. "I'm sorry, honey, it's just that we're all so worried about you today." She then stepped inside my house, looking incredibly dissatisfied.

"Mom, I'm fine. Really. I don't understand why everyone is so worried about me today. It's not a big deal."

My mom gave me a look, the kind that made me feel like she felt very sorry for me. It was like she felt guilty. "Okay, honey. How about you shower and we go get some lunch, okay?"

I nodded, knowing I wasn't going to win this battle.

"Alright, whatever. I have food in the kitchen, help yourself."

I went back to our room and shut the door. I slipped out of the silk nightgown, tossing it on the bed. Where's Olly? I wanted to go look for him, but I knew my mom would have none of that, at least not until I'd showered.

I walked across our soft, white carpet into the bathroom, stepping onto the cool-smooth white tile. Matthew liked white. No, he *loves* white. I turned the shower on and stood in front of my mirror for a moment. I looked different, thinner. I wasn't sure why. I stepped into the shower and couldn't help but wonder why Matthew's things were gone. Maybe he took them with him? But, he'd always had that travel pack he took everywhere... I shrugged it off, and began shampooing my hair.

My mom insisted on buying me lunch and making sure I ate most of it. I really felt very nauseous though, so eating was a difficult task. I couldn't get Matthew off my mind. I knew he probably wouldn't approve of me spending all day with my mother, though he did understand that I had to see her sometimes. He told me that she wasn't good for our relationship because she always tried to put ideas into my head, and he was right. Later, as we were walking through the mall, I decided to talk to my mom about this. She only meant well, after all.

"Mom?"

"Mhmm?" she responded.

"I think I need to talk to you about Matthew"

She got a strange look on her face, it was almost like relief. "What about him?"

"Well, he thinks you disapprove of us and that you are bad for our relationship. I think he's right."

My mom sighed, and looked at me shaking her head slowly. "Claudia. We have already talked about this. Matthew doesn't like me because I see what you can't. I see the way he talks to you, even when your brother and I are around."

I felt anger boiling up inside of me. Everyone always told me that Matthew was bad. But, he *loves* me! They are all wrong. "Whatever. Forget it. I'm not arguing about this with you. I just probably should stop seeing you so much. Matthew loves me so much and does so much for me, I don't want to do anything to make him uncomfortable."

My mom didn't even look angry, just sad. "Okay, honey. Let's take you home."

I felt guilty, and a little bit of me hated Matthew for making me put a wedge between me and my mother, but his love was worth it.

When we got back, my mom insisted that we watch TV for awhile. It was coming up on seven in the evening, I was beginning to wonder if she would ever leave. We were sitting on the plush tan couch, watching Food Network, although I wasn't sure what show we were watching; I kept thinking about Matthew too much to pay attention. "Have you seen Oliver?" I asked her, remembering that I still hadn't seen our little ball of fluff. I had wanted a big dog like a German Shepherd, but Matthew insisted that smaller dogs are better. "They can't attack you that way", he'd said, hugging me so tightly I thought I might break. Oliver had a habit of hiding and sleeping the day away, but he should have shown himself at this point.

"What? Oliver? You haven't mentioned him in awhile... Are you sure you're okay?"

I was getting annoyed, Why was I being treated like there was something wrong with me. "Why do you keep asking me that? Why wouldn't it be? Matthew is just gone for business, he'll be back in a few days. I just want to find my dog."

As I spoke, tears welled up in my mother's eyes. "Honey... I thought we'd gotten past this. That's why you're allowed to be here again. You promised this was over."

Again? What was she talking about? “Mom? What are you saying? Gotten past what? I told you, I’m fine!” The tugging in my stomach was getting worse.

“Claudia. Four years ago today, Matthew died.” She said the words in a slow, careful voice. But they didn’t register right away.

“What? Why?” That’s all I could say. My stomach was starting to feel sick now.

“He did go on a business trip, on September 8th, 2015.” She swallowed harshly. “He was killed in a freak accident, a car crash that tumbled off the side of the road in New York.”

I didn’t register any of what she was saying. “But, I just saw him... it was...” When did he last hold me? It couldn’t have been last night, the sun was shining when that happened. But I didn’t see him this morning, did I? I swallowed, trying to keep the nausea down.

“I’m sorry, honey. It’s been four years, One year since you were told by your therapist that you could live here again. You insisted that you just loved this house, and it’s close to your work. He said you’d overcome the trauma, clearly he was wrong.” She seemed angry, almost.

“But, where’s Oliver?” I couldn’t think of anything else. My mind wasn’t working.

“Matthew took him away about a week before he left on that trip, honey. He was mad at you for something I don’t know what...”

I was remembering now. “Because I told him you thought he was bad for me.”

I felt obligated to pretend I believed her, even though I kind of did. But I also felt so angry at her. I had brief flashes returning to me now. Silk sheets on the ground. So many white tissues that they formed another layer atop the white carpet. Me checking my phone, nothing from Matthew—more tissues. And now, I was remembering. My mother going through the bathroom, throwing away his things. I’d wanted to keep them. I wanted to pretend he was coming back, that was the only way I could sleep that night. “I’ll face it tomorrow,” I’d just kept saying. But really, I never did face it. I wasn’t going to now, either.

“Claudia?” My mother asked, she looked so worried.

“Yeah...” I croaked. My throat felt swollen.

She pulled me into her arms, squeezing me tight. “You know, it was for the best that he’s gone. He hurt you so badly. He made you feel like you weren’t worth anything. He abused you in the way that leaves invisible bruises.”

I felt angry. “How can you say that? Especially if he really is gone?” He isn’t. “Matthew treats me like a princess. He says I only deserve silk, and white to be pure because princesses are pure. He says I don’t need anyone but him to be happy. How can you say it’s good that he’s gone?!”

“Oh, goodness.” My mother sighed, she began stroking my hair. I felt tears drip onto the sleeve of my shirt. I wasn’t sure if they were hers, or mine.

It was ten-thirty at night. I'd finally convinced my mom to go to bed, although she insisted on staying the night on the couch. I crawled into my own bed. I hoped Oliver would come out from hiding tomorrow. I thought about what my mom had told me. I winced. I thought about Matthew screaming at me, telling me I was disgusting. "You have to wear this nightgown, it's white. You need to become pure. You're disgusting. But only I love you enough to put up with it." I shook my head in order to physically shake the memory away. It couldn't be real, I can't survive if I allow it to be real.

I plugged my phone in, smiling at the lock screen. The perfect moment. I burrow beneath the silk green sheets. Silk, because Matthew insisted I deserved nothing less. He loved me so much. I felt the tugging in my stomach again, but I closed my eyes. I remembered that moment, when he told me to relax, stop stressing out so much.

"Just sleep", he said. I smiled. Only he could love me that much, no one else would be able to. That moment felt so far away, but really, I knew that was just this morning. I did what he said, I pretended he was behind me. That his arm was wrapped around my waist. That he was there. And, maybe it was just the weight of the sheets, but it felt like he was.

# **The Work of the World**

*By Mark C. Joslin*

The rain droplets beaded against the high windows of the old house, the only noise Franco could hear. He had a strange and horrible fantasy that after blinking he would open his eyes to see the pair of bloody eyeballs next to his right hand on the window pane. The cords trailing the eyes were all messy and tangled. Franco imagined this until it became terrifying, and then squeezed his eyes together very tightly, as if the pressure would push the nasty thoughts away. It took him several seconds to gain the courage to open his eyes again, and to his relief the pane remained empty.

In the chair across the room, his old aunt mumbled in her sleep. It was late afternoon on a rainy day and she had fallen asleep watching Franco. He swung himself off the window seat and ran across to the stairs. The house felt cold and dark, and he switched on every light-switch he encountered on his way toward Jammie's room. The whole way he held up his hands defensively, like a person groping in the dark. In Jammie's room he slid his hand inside the door first, to turn on the light before entering. Franco recoiled violently as his hand touched something damp among clothes in the hamper below the light switch.

The gate to Jammie's crib was down and bits of glass were still scattered on the floor. The bloodied blanket was stuffed into a laundry hamper next to the door. He had touched it. For a moment, Franco fancied that the pair of eyeballs sat on the crib, lolling around absently. Thunder crashed suddenly and Franco tore out of the room and down the stairs. He sat on the floor next to his aunt's chair until she awoke.

"Oh Franco, whatever are sitting there for?" she said after moistening her open mouth.

"I was afraid of the thunder, auntie," said Franco in a small voice.

"Dear, it's just electricity in the clouds, nothing a boy of your age should be frightened of. How late is it?" asked his aunt, rising. "Just after eight o'clock, we better get down to the hospital to check on your brother. Put your shoes on and get in the car, Franco. I need a drink of water."

Franco slowly followed his aunt into the hospital room. His mother was sitting in a chair beside Jammie's bed. Jammie lay motionless in bed with thick bandages over his eyes.

"Oh dear," whispered his aunt, clasping her hand over her mouth. "His poor little face. Celia, sweetie, oh my God, I'm so sorry. Such a little boy..." Auntie's voice became hoarse and cracked. Celia and his aunt embraced and wept, while Franco stood with his hands in his tiny coat pockets, staring at his brother's unmoving feet. He began to cry, too.

It felt like someone else had done it. Not him. Franco's tiny chest was heaving with sobbing gasps, and he wept with the abandon of a child who feels no shame in crying. Already the guilt was forming into a hard stone in his stomach as he watched his mother weep with his aunt. Franco clenched his small fists. He could never tell now.

"Frankie, give me the whistle. It's my turn now," whined Jammie. Franco

looked at him disdainfully.

“You don’t get any turns. You traded it for my car yesterday. It’s mine now and you can’t use it. You’re too little anyway.”

“But Frankie you said I could still use it! Stop lying! You always lie to me!” Jammie shrieked breathlessly, on the verge of tears.

“Stop it right now. You traded it so it’s mine and I say you can’t use it,” Franco replied matter-of-factly. “Now leave me alone.”

Jammie was becoming hysterical, choking out, “Stop lying! Come on, please! Stop it. Please,” groping toward his brother’s voice.

“Don’t touch me! You traded me! I’ll hit you Jammie! I promise I will.”

“Please Frankie. Please, please, please. You’re lying. Please!” Franco felt a surge of repulsion and his brother’s open patheticness. “I’ll put you in the closet and lock the door. Stop crying right now Jammie. You can scream and no one will hear ‘cause I’ll close the bedroom door too. Just keep on crying. See if I don’t do it.”

But Jammie kept stumbling toward him, hands outstretched. “Please! Frankie, please,” he kept sputtering.

Franco took Jammie violently and dragged him into the closet as Jammie struggled and shrieked. He forced him in and slammed the door shut, leaning against it so his brother couldn’t open it. Jammie screeched and cried frantically, pounding the door with all his might, while Franco taunted him about the devils that lived in the closet.

Suddenly, Franco hated the entire thing, wrenched the door open and hurled the whistle at Jammie. Jammie came toward his brother gratefully, but Franco ran out and down the stairs.

Franco sat at the dinner table with his mother and brother for the first time in a long while. His mother glanced sidelong in his direction every several seconds.

“God, Mom, what do you want?”

“Frankie, Mr. Moreno phoned today,” began his mother patiently, “you’re failing history and algebra. What are you going to do with yourself? If you would just—”

“Don’t call me Frankie. I’m not a little kid.”

“Well Franco, if you want to be treated like an adult, it comes with responsibilities. You have to earn it.”

“It’s my name, I don’t have to earn anything,” Franco spat defiantly.

“Frankie, why are you getting angry? I’m just trying to talk to you. Jesus, you get so defensive all the time.”

“Stop calling me Frankie.”

“Adults think about the future, Franco. And right now, you’re not doing that. You skip school and run out at night. Jammie has seen you and so have I.”

“Jammie doesn’t see anything Mom. He’s making it up to make me look bad.”



Jammie, looking smug, interjected sarcastically, “Don’t worry about school Mom, Frankie’s going to be a painter. He’s an artist. Like Michelangelo.”

“Now, Jammie—” she began to say.

“How would you know what Michelangelo looks like, Jammie? Poor little blind baby. Why don’t you go crying for Mommy?” retorted Franco savagely.

“Frankie! Stop that this instant!”

“Shut up!” cried Jammie, slamming his fist on the table. “You don’t know anything about being blind! I hate you.” He formed the words with bared teeth.

“Jammie!” shouted his mother.

“Are you going to cry you little helpless child? Oh, don’t cry. God, you’re so pathetic.”

“Frankie, that’s absolutely enough. I never want to hear this kind of talk from either of you again.”

“Mom, honestly, I don’t care much about what you want to hear. I’m leaving,” said Franco coolly, rising from his chair.

“Don’t you leave this table!”

Franco smiled mockingly. “Bye bye Mommy, bye bye baby brother.”

Heavy paint droplets slid down the torn canvas, leaving cloudy trails behind them as they dripped on the sheets covering his studio floor. Franco sat at his desk, with his hands folded under his chin, utterly exhausted. His hatred for those paintings had been the strongest feeling he’d felt in a long time, but he’d hated destroying them almost as much. The tiny black pupils stared at him from the shreds of canvas.

“God, I hate those eyes. I hate them. I hate them. I hate them.” He couldn’t bear to look at that small black spot, and shut his own eyes very tightly, willing the horror away. There were wet beads of paint on the desk too. Franco smudged them loathingly with his finger.

“God knows my soul, He knows I didn’t mean it to come to this. He knows my soul. He knows I was just a child,” he muttered, as if chanting the Eucharist. Franco repeated these again and again as he rose and brushed the ever-present shreds of canvas away.

“God knows my soul. God knows I didn’t mean it. He knows the truth.” He mumbled faster, shuffling on the floor, brushing and turning with both hands.

“He knows. Only him.” His frantic hands found the needle, there, next to the pupil. Franco returned to his desk chair, and held the needle with hands trembling in anticipation. “I hate them.” For the thousandth time he rolled back his sleeve and did it.

Strange chemicals swam in his blood, it surged like a torrent under his skin. The pressure behind his eyes threatened to burst his body as an over-pumped bicycle tire. Franco waited for the moment to pass. This was familiar, and he knew its ways. There were probably no canvases left. All around him flew

disembodied pairs of eyes, undulating with cords flowing behind them, comets of his affected state. He rose and moved toward his paints.

Partway to the paints, the weariness and the swarm of swirling eyes stopped him, flying too thickly to move forward. Franco lay down, but squeezing his eyes shut was no good now. The artist's easel was smashed and all the canvases torn to pieces, he saw helplessly, nothing to paint on. Nothing to work on. Franco put his head back and closed his eyes, still seeing those eyes before him.

"Please, Frankie, please. Stop lying to me! Please!"

He jolted forward at the sound of his brother's voice. "I deserve this! I deserve it!" he wailed. "But I was only a child. A jealous little child." Franco opened his eyes, and the room felt clear again. This, as a thousand times before, was the time to reveal himself.

Franco ruthlessly threw aside the broken easel and the smashed track lights that stood in front of the long, white studio wall. Seizing his brushes, he began with shaking hands.

When sober, Franco knew he'd never have the courage to return the gaze of those ever-present, ever-watching eyes. But now he stared at them, into the pit of those dark pupils. Every time he'd come down, Franco had torn the canvases of his former trip into pieces, despising his weakness and fearing their discovery. He would finish this time though, and make Jammie see. The wall couldn't be torn apart like the canvases. There was no going back.

Sweat flowed freely down his back as he made the long curving strokes of the two matching orbs, feeling that in each moment more sets of eyes gathered to watch him. He was painting in a concert hall, then a football stadium, at the very locus of the universe with every pair of eyes trained on his work of the world, every ocular nerve coursing with his creation and his sin. The curving circles doubled back on themselves and within themselves and wound deeper into the wall and out from it. The work exhausted him and blood pulsed in his eye sockets. The festering wound had been lanced, and all the nastiness was rising to the surface.

Franco injected again, feeling his courage waning, and once again. No longer perspiring, he felt chilled to the bone. But finishing this painting of his studio wall was all he could do, the only thing left to do, except lie in the shreds of canvas.

"Jammie, Jammie, Jammie," thought Franco, "I was just a child. I deserve it. I did it. It was me, Jammie."

The superintendent shuffled through his heavy ring of keys, searching for the one to Franco's apartment. "Haven't seen him in several months," he was saying, "but some other residents heard a noise last night, so when you folks came in I thought it might be a good time to check it out," he said, glancing at James and his mother.

"He left home years ago and hasn't contacted us since," replied James

somberly in his dark glasses. “Frankie was staying with our aunt for a year or so, and she kept us updated, but he straight-out refused to speak to us or even be in the same room.”

The superintendent nodded sympathetically, and tried another key in the lock. “We don’t know what got into him. We’ve simply decided that enough is enough,” said James’ mother tersely, “A mother has a responsibility for her son, regardless of what he himself decides.” She said it calm enough, but with the restraint accompanying something more painful.

The key turned in the lock, the door opened. All three went in, Mother’s hand on James’ arm. The musty smell hit all of them discouragingly, signaling that something was wrong.

“I’ll check the kitchen,” said the superintendent pointing left, “You two check the bedroom through the hallway.”

“Oh my God,” began mother, putting her hand to her mouth.

“What is it, what is it?” asked James.

“This place is an absolute wreck. I’ve never seen anything like it. Oh, Frankie!” she said as her voice cracked.

As his mother began to pick through the shreds of linen, canvas, and paper, James turned out of the room into the hallway, feeling his way along. He turned into a room that felt big and breezy, and something like leaves rustled around his feet. A faint breathing came from across the room. “Frankie? Frankie!” he called, hurrying across the room. Hearing his voice strongly reverberate back at him, he knew he must be close to the far wall now. A croaking voice came from his left.

“Jammie. Jammie. It was me.”

“Frankie! Is that you? What’s going on? What do you mean it was you? Mom! Come in here, I’ve found him!” People came rushing through the shreds of canvas noisily, and went straight to Franco.

“Oh God, no. No, no, no,” cried Mother, “No. Frankie, no!”

As James tried to find his brother, he put his hands on something thick and goeey, smelling powerfully of oil.

“That’s a damn big pair of eyes, son. Covers the whole wall,” said the superintendent in James’ direction.

“It was him,” thought James, seeing it for the first time, “Him, my own brother. Franco.” From the edges of his sightless eyes, tears had begun to fall.



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