



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**IN HARMONY WITH THE POPULATION:
ETHNOMUSICOLOGY AS A FRAMEWORK FOR
COUNTERING VIOLENT EXTREMISM IN THE SAHEL**

by

Mathew C. Wenthe

December 2016

Thesis Advisor:
Second Reader:

Kathleen Kiernan
Lauren Wollman

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REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE December 2016		3. REPORT TYPE AND DATES COVERED Master's thesis
4. TITLE AND SUBTITLE IN HARMONY WITH THE POPULATION: ETHNOMUSICOLOGY AS A FRAMEWORK FOR COUNTERING VIOLENT EXTREMISM IN THE SAHEL			5. FUNDING NUMBERS	
6. AUTHOR(S) Mathew C. Wenthe				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB number ____ N/A ____.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words) Through continued efforts like the Pan-Sahel Initiative of 2002 and subsequent Trans-Saharan Counterterrorism Partnership initiated in 2005, the State Department and Department of Defense struggle to leverage interagency partnerships and multinational cooperation within the Sahel region to wage war on terrorism and enhance regional peace and security. While these programs have made modest progress through mil-to-mil engagements and U.S.-led military exercises in the region, they fail to understand and address the full scope of regional security issues in the Sahel to include transnational organized crime and centuries-old regional sovereignty disputes. If policy makers hope to achieve and maintain true situational awareness in such a dynamic environment, they must leverage all available tools. In a region like the Sahel, where music is a foundational component of the cultural heritage and modern communication channels, ethnomusicology becomes a valuable tool with which to build situational awareness and enhance engagement with the population. This thesis draws from ethnomusicology research theory, intergroup psychology principles, and network convergence and communications theory to create a framework for regional security studies in order to better understand intergroup dynamics in the Sahel, and works as a tool to map networks in the region. Using Mali as a case study, it recommends the application of ethnomusicological analysis to identify and address legitimate grievances within the population that provide exploitable leverage points for regional bad actors. Further, it suggests using the existing peer-to-peer cell phone music sharing network in the Sahel to identify convergence nodes to target illicit networks in the region.				
14. SUBJECT TERMS: ethnomusicology, counter violent extremism, Trans-Saharan Counterterrorism Partnership, Mali, Sahel, Maghreb, psychology, Tuareg, music, digital media, art, multiculturalism, communication flow theory			15. NUMBER OF PAGES 143	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU	

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FRAMEWORK FOR COUNTERING VIOLENT EXTREMISM IN THE SAHEL**

Mathew C. Wenthe
Chief, Personnel Recovery and Special Operations, Air National Guard
B.S., United States Air Force Academy, 1996

Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES
(HOMELAND SECURITY AND DEFENSE)**

from the

**NAVAL POSTGRADUATE SCHOOL
December 2016**

Approved by: Dr. Kathleen Kiernan
Thesis Advisor

Dr. Lauren Wollman
Second Reader

Dr. Erik Dahl
Associate Chair of Instruction,
Department of National Security Affairs

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ABSTRACT

Through continued efforts like the Pan-Sahel Initiative of 2002 and subsequent Trans-Saharan Counterterrorism Partnership initiated in 2005, the State Department and Department of Defense struggle to leverage interagency partnerships and multinational cooperation within the Sahel region to wage war on terrorism and enhance regional peace and security. While these programs have made modest progress through mil-to-mil engagements and U.S.-led military exercises in the region, they fail to understand and address the full scope of regional security issues in the Sahel to include transnational organized crime and centuries-old regional sovereignty disputes. If policy makers hope to achieve and maintain true situational awareness in such a dynamic environment, they must leverage all available tools. In a region like the Sahel, where music is a foundational component of the cultural heritage and modern communication channels, ethnomusicology becomes a valuable tool with which to build situational awareness and enhance engagement with the population.

This thesis draws from ethnomusicology research theory, intergroup psychology principles, and network convergence and communications theory to create a framework for regional security studies in order to better understand intergroup dynamics in the Sahel, and works as a tool to map networks in the region. Using Mali as a case study, it recommends the application of ethnomusicological analysis to identify and address legitimate grievances within the population that provide exploitable leverage points for regional bad actors. Further, it suggests using the existing peer-to-peer cell phone music sharing network in the Sahel to identify convergence nodes to target illicit networks in the region.

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LIST OF ACRONYMS AND ABBREVIATIONS

AQIM	Al Qaeda in the Islamic Maghreb
CT	counterterrorism
CVE	counter violent extremism
DOD	Department of Defense
FIS	Islamic Salvation Front
GAO	Government Accountability Office
GIA	Armed Islamic Group
GSPC	Salafist Group for Prayer and Combat
MIA	Algerian Islamic Movement
MNLA	Movement for the Liberation of Azawad
MUJAO	Movement for Oneness and Jihad in West Africa
PSI	Pan-Sahel Initiative
SIWG	Standing Interagency Working Group
TSCTP	Trans-Saharan Counterterrorism Partnership
USAID	United States Agency for International Development
VEO	violent extremist organizations
WoGA	whole-of-government approach
WoNA	whole-of-nation approach
WoSA	whole-of-systems approach

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EXECUTIVE SUMMARY

In November 2002, the State Department announced the Pan-Sahel Initiative (PSI) to assist Mali, Niger, Chad, and Mauritania in detecting and responding to suspicious movement of people and goods across borders in the Sahel. Through training, equipment, and cooperation, the PSI sought to support two U.S. national security strategies in Africa by waging the war on terrorism and enhancing regional peace and security. The focal points of the initiative were fostering regional cooperation, countering terrorist organizations in the region, and promoting the United States' European Command's interest in the region through mil-to-mil engagements using U.S. Special Operations Forces.¹ Constrained by limited resources and focus, the PSI was replaced in 2005 by the Trans-Sahara Counterterrorism Partnership (TSCTP).² The new multi-faceted, multi-year strategy expanded to integrate U.S. Department of State, U.S. Agency for International Development (USAID), and Department of Defense (DOD) initiatives and increased spending up to almost \$80 million per year. Unlike the PSI, TSCTP introduced a more comprehensive approach to regional security in the Sahel.

Despite its expansion in funding and interagency participation, many experts criticized the TSCTP for a fundamental lack of understanding of extremism and criminality in the region. Additionally, critics accused African governments of taking advantage of perpetuated misconceptions of so-called ungoverned spaces in the desert to generate fears about violent extremism in order to obtain increased financial support for their underfunded militaries.³ Finally, in 2012, critics' fears were realized as northern Mali fell in to a state of Sharia law almost overnight. A nation that prided itself on religious tolerance and

1 John Pike, "Pan-Sahel Initiative (PSI)," GlobalSecurity.org, January 24, 2013, 1, <http://www.globalsecurity.org/military/ops/pan-sahel.htm>.

2 Ibid., 3.

3 John Pike, "Trans Sahara Counterterrorism Partnership (TSCTP)," GlobalSecurity.org, January 24, 2013, 3, <http://www.globalsecurity.org/military/ops/tscti.htm>.

diversity, and famously considered music its number one export to the world, was helpless to prevent a complex chain reaction that led to the criminalization of all music. In the end, the reliance of the Malian people on their music, and the Jihadist's failure to understand the foundational role of music in the cultural identity of the region, contributed to the ultimate failure of the Jihadist takeover.

In 2016, the region remains unstable, and U.S. policy makers remain focused on fighting terrorism and promoting stability in the region, while a small but diverse and vocal community of local musicians and artists struggle to regain the cultural identity of their past, present, and future. Music still holds a unique role as a defining cohesive element in this otherwise disparate cultural landscape. From the Tuareg desert guitar rock made famous around the world by bands like Tinariwen to the Songhoy guitar blues of legendary artist Ali Farke Toure to the modern activist rap of Amkhoullé to the digital cell phone music being recorded and shared across the Sahel, music remains the defining element of Malian nationality to its citizens and to the world.

B. PROBLEM STATEMENT

The steady increase in instability across the Sahel region over the past decade and the potential threat this instability presents to global security necessitate a continued and comprehensive study of the region. Researchers seeking to effectively understand the people and intergroup dynamics of the Sahel must identify and evaluate communication channels and they must consider the cultural identity of the region in order to accurately understand and integrate messaging within the Sahel to promote stability and counter violent extremism. The study of music provides both a unique insight into the communication methods and networks of a region as well as a more nuanced understanding of the cultural framework of the region. By failing to incorporate a technical and behavioral understanding of music as a component of analysis in Sahel nations like Mali, where music is a foundational component of cultural

heritage and modern communication, researchers risk never obtaining a complete grasp of the situation on the ground.

C. RESEARCH QUESTIONS

How can knowledge gained through the incorporation of ethnomusicology into regional security analysis of the Sahel be used to promote stability and counter violent extremism? How can understanding local and regional music initiatives be leveraged to expand outreach programs in the Sahel? Can an interdisciplinary approach using a framework based on a theoretical research model for ethnomusicology be applied successfully to regional security studies in the Sahel? Can the practice of sharing music files via direct phone to phone Bluetooth transmission be used to map trade or travel networks in the Sahel? If so, how should this information be leveraged to either target illicit networks or enhance positive messaging in the Sahel?

D. ANALYSIS

This thesis will consider Western policy attempts to combat terrorism and promote stability in the Sahel region and question whether these efforts were misguided or at least underinformed in addressing regional issues. By exploring principles of ethnomusicology, psychological impacts of music and multiculturalism, network analysis, and communication flow theories, this thesis offers a framework for incorporating an understanding of regional music dynamics to enhance regional counter violent extremism (CVE) policy. Borrowing from ethnomusicologist Alan P. Merriam's concept of technical, academic, and social responsibilities of ethnomusicology, this research suggests a map-lens-bridge approach to map illicit networks, observe multicultural dynamics, and engage marginalized communities through music in the Sahel. Ultimately, this thesis recommends that the proposed ethnomusicological approach to CVE be integrated into existing counter terrorism policy as a catalyst for expansion to a whole-of-nation approach to CVE that ensures coherence between government and private-sector programs in the Sahel.

E. RECOMMENDATIONS

This thesis makes the following recommendations:

1. **Adopt a whole-of-nation approach modeled after cyber security or fragile state policy:** As recent reports have shown, TSCTP has been successful achieving multi-agency cooperation for a whole-of-government approach via the 3Ds: defense, diplomacy, and development. To maximize results, the program should identify whole-of-nation or private-sector activities that are operating relative to each of its lines of effort and leverage the 3Cs to ensure non-governmental and private efforts in the region are coherent, coordinated, and complementary to TSCTP efforts.
2. **Draft a strategy to implement ethnomusicology as a fundamental element of the whole-of-nation approach:** The ethnomusicology aspect could be implemented as either a separate line of effort synchronizing government, NGO, and private-sector engagement through music. Alternatively, ethnomusicology could be incorporated into the “counter spread of violent extremist ideologies” line of effort.
3. **Fund an ethnomusicologist advisor to TSCTP’s Standing Interagency Working Group (SIWG):** The SIWG meets monthly in Washington, DC, and monitors resource allocation, interagency coordination, and strategic objectives. Absent a permanently funded staff organization for TSCTP, this working group would be the best place for a dedicated ethnomusicologist.
4. **Fund grants for the U.S. private-sector music industry to engage with the Mali music industry:** The research supports the notion that Malians consider music as one of their staple exports. Therefore, a healthy relationship between the Western music industry and the musicians, producers, and venues of Mali should be a foundational aspect of U.S. economic exchange with Mali. By funding grants to support private and academic music projects, TSCTP can promote coherence and coordination and more focused government activities through Voices of America or USAID.
5. **Support reestablishment of Festival au Desert in Timbuktu:** Prior to 2012, the Festival au Desert was the dominant international symbol for northern Mali and Mali as a whole. Resumption of the annual festival alone is a worthy objective of counterterrorism policy in the Sahel, and once resumed, the festival will facilitate continued whole-of-nation engagement opportunities in the long term. This objective also provides an opportunity to synchronize government activities, like border security and law enforcement with non-

government and private activities, such as the production and management of the festival.

6. **Fund research and development for tracking file transfer over Bluetooth or cellular networks:** The development and implementation of technology to track discrete digital artifacts through the cellular networks in the Sahel could be funded through government agencies like the Defense Advanced Research Projects Agency or the Office of the Secretary of Defense Joint Test and Evaluation. Alternatively, private-sector innovation could be leveraged through the new DOD “venture capital” arm, Defense Innovation Unit Experimental.

F. CONCLUSION

If existing counter terrorism policy in the Sahel can be expanded to incorporate private-sector and non-governmental organizations’ efforts in the region, then the overall effectiveness of existing government programs will be maximized. In a region like the Sahel, where the geopolitical and cultural dynamics create a unique reliance on music and oral history to affect communication flow in the absence of technological means, ethnomusicology becomes instrumental in helping to map the cultural geography. Any attempt to understand the underlying multicultural dynamics in the Sahel as they pertain to CVE will likely be incomplete if they do not incorporate the role of music in the region. This thesis attempts to merge disparate disciplines into a comprehensive framework for incorporating ethnomusicology as the cornerstone of an expanded whole-of-nation approach to counter violent extremism policy in the Sahel.

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ACKNOWLEDGMENTS

I would like to express my sincerest gratitude to the faculty and staff of the Naval Postgraduate School who helped me, and others like me, succeed in this program. Specifically, I'd like to thank Dr. Kathleen Kiernan and Dr. Lauren Wollman for their continued guidance and mentorship during this thesis project. Also, I'd like to thank my family for their unending support and tolerance during this effort. I could not have done it without them.

Finally, I would like to recognize the professionalism and dedication of writers and explorers like Christopher Kirkley and Andy Morgan, whose enthusiasm and unending support for the people and music of the Sahel served as the inspiration for this research.

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I. THE DAY THE JIHAD CAME

Music guides the whole of our society. The proof is that the griot became so institutional. He was like a judge, a lawyer, a federator, who calmed quarrels in the old days. Everything in Mali involves music, even funerals. Music regulates the life of a Malian, from ancient days until today.

—Cheikh Tidiane Seck¹

In April 2012, the National Movement for the Liberation of Azawad (MNLA), a group of Tuareg separatists in northern Mali, joined forces with Ansar ud-Dine and the Movement for Oneness and Jihad in West Africa (MUJAO), a militant Islamist Tuareg group believed to have ties with Al Qaeda in the Islamic Maghreb (AQIM). Together, their fighters stormed the northern Mali towns of Gao, Kidal, and Timbuktu. Capitalizing upon chaos created following a recent military coup within the Mali government, the rebels were able to swiftly take control of the northern desert region of Mali and soon announced the establishment of the independent Tuareg state of Azawad. A state flag was established and social media sites exploded with a fervor of pro-Tuareg sentiment and pride.

Soon however, tensions grew between the MNLA and the Islamists over the imposing of Sharia law in Azawad. On June 25, 2012, Ansar ud-Dine and MUJAO defeated the secular Tuareg forces of the MNLA at the Battle of Gao, driving them back in to the desert and achieving complete control of the urban centers of northern Mali.² What followed was 10 months of harsh Sharia law imposed on a heretofore secular, moderate, multicultural society whose cultural heritage revolved around music and oral tradition. One morning in August 2012,

¹ Andy Morgan, *Music, Culture and Conflict in Mali* (Copenhagen: Freemuse, 2013), 53.

² Joshua Hammer, "When the Jihad Came to Mali," *New York Review of Books*, March 21, 2013, 8, <http://www.nybooks.com/articles/archives/2013/mar/21/when-jihad-came-mali/>.

the newly empowered MUJAO leadership broadcast the following announcement from mosques across the Islamist-controlled Azawad:

We, the mujahedeen of Gao, of Timbuktu and Kidal, henceforward forbid the broadcasting of any Western music on all radios in this Islamic territory. This ban takes effect from today, Wednesday. We do not want Satan's music. In its place there will be Quranic verses. Shari'a demands this. What God commands must be done.³

The circumstances and events surrounding northern Mali's spiral into Sharia law provides a unique case study on complex intergroup dynamics. Even after the fact, understanding exactly what took place in northern Mali in 2012 requires a deep understanding of the cultural and social dynamics at play in this diverse region, past and present. Nowhere is this complex cultural landscape displayed as well as through the music that has, for ages, defined the heritage of the many peoples occupying the Sahel region of the Sahara, from the banks of the Niger to the mountainous border of Algeria. The resulting musical landscape is as complex as the cultural landscape that produces it, and as a result it provides researchers and analysts an excellent window into the collective soul of the region.

My research will set out to determine how a better understanding of the musical culture of a region such as northern Mali can educate a larger discourse on how to engage that community to prevent radicalization and counter violent extremism (CVE). What role, if any, does music play in promoting or countering violent extremism? How can knowledge of the role of music be used to assess a certain population's vulnerability to radicalization? Can this knowledge be leveraged to influence the intergroup dynamics within populations to prevent violent extremism? If so, what are the ethical implications of doing so?

In the end, it was arguably the Malian peoples' impenetrable bond to their musical heritage, and the Islamists' failure to understand this deep relationship

³ Morgan, *Music, Culture and Conflict in Mali*, 13.

between the Malians and their music and culture, that led to the ultimate failure of the AQIM effort to control the people. At least for now ...

Everything is transmitted in Mali through music, through poetry. We enjoy life through music. The MUJAO can exist but not among this people. And I don't see how, in the 21st century, they'll manage to occupy the entire territory without the support of the people who live there. So, that declaration of theirs, instead of making me panic, at least it tells me that we're dealing with people who don't know what they're doing, who aren't serious and who won't win. Because they are aiming for Utopia. They don't understand the culture that they are operating in and they don't try and understand it either. And most importantly, they're not in harmony with the population.

— Manny Ansar, the director of the Festival au Desert⁴

⁴ Morgan, *Music, Culture and Conflict in Mali*, 29–30.

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II. INTRODUCTION

Today, as never before, governmental agencies of the nations of the world are recognizing the fact that international understanding and goodwill is possible only when the cultural expressions of the peoples involved are comprehended. To this end the ethnomusicologist must set for himself exacting standards worthy of his responsibility.

—Mantle Hood, Ethnomusicologist, 1957⁵

Almost a decade and a half into the U.S. Global War on Terror, it is difficult to point to any tangible metrics that would indicate that the U.S. strategy in this effort has been successful. Despite having spent billions of U.S. dollars and fighting two major wars, the United States faces a global environment that is as volatile and uncertain as ever, and the “terrorist” enemy continues to adapt and survive despite our best efforts to eliminate it. Nowhere is this more clearly demonstrated than in the United States’ efforts to counter violent extremism in trans-Saharan Northwest Africa. Hundreds of millions of dollars have been dispersed the Trans-Saharan Counterterrorism Partnership (TSCTP) and its predecessor the Pan-Sahel Initiative (PSI) yet, by all accounts, terrorism in the region has increased significantly since the programs’ inceptions in 2005.⁶ Porous borders, rampant government corruption, large disenfranchised populations, and transnational criminal networks continue to make the Sahel and Maghreb regions of Northwest Africa vulnerable to the spread of violent extremism. In 2012, these elements converged in the north of Mali and triggered a rapid decline into Sharia law in a region of a country that had previously been considered the gold standard for post-colonial development in West Africa.

⁵ Mantle Hood, “Training and Research Methods in Ethnomusicology,” *Ethnomusicology Newsletter*, no. 11 (1957): 8.

⁶ Government Accountability Office, *Combating Terrorism: U.S. Efforts in Northwest Africa Would Be Strengthened by Enhanced Program Management* (GAO-14-518) (Washington, DC: U.S. Government Accountability Office), 3, accessed September 5, 2016, <http://www.gao.gov/assets/670/664337.pdf>.

Despite significant setbacks like those seen in northern Mali and the overall ineffectiveness of policies that have been pursued steadily for over a decade, the U.S. strategic approach to countering violent extremism in Northwest Africa appears fundamentally unchanged. Failure by U.S. policy makers to identify and address failed policy and to explore new innovative solutions for engaging the root causes of violent extremism will most certainly lead to continued lackluster counterterrorism operations in the region and continued threat to regional and global national interests. This research will explore whether the methods of inquiry and frameworks of analysis used by ethnomusicologists can be directly and indirectly applied to enhance U.S. efforts to counter violent extremism.

A. U.S. TRANS-SAHARAN SECURITY POLICY: WHAT IS WORKING AND WHAT IS NOT?

U.S. counter-terrorism operations in the Sahel began shortly after 9/11, and while they have grown to become more regional and embrace a whole-of-government approach (WoGA) over time, the underlying strategy continues to be heavily dependent on Department of Defense (DOD) operations and fails to integrate with non-governmental organizations or private industry in a whole-of-nation approach (WoNA). The Pan Sahel Initiative, a precursor to the TSCTP, executed an annual budget of \$7.75M between 2002 and 2004 to train partner nation counterterrorism (CT) forces in Mali, Chad, Mauritania, and Niger.⁷ In January 2004, U.S. Ambassadors to Algeria, Mali, Morocco, Niger, and Tunisia identified the need for a comprehensive regional approach to countering terrorism that went beyond training regional security forces to include development assistance and public diplomacy.⁸ As a result, the TSCTP was founded in 2005. The State Department–led multiagency program focuses on the “3Ds” of diplomacy, defense, and development and covers 10 countries in the region: Mali, Chad, Mauritania, Algeria, Morocco, Nigeria, Senegal, Tunisia, and

⁷ Lesley Anne Warner, “The Trans Sahara Counter Terrorism Partnership: Building Partner Capacity to Counter Terrorism and Violent Extremism,” Center for Complex Operations, March 2014, 22, https://www.cna.org/CNA_files/PDF/CRM-2014-U-007203-Final.pdf.

⁸ Ibid., 23.

Burkina Faso. According to the joint 2014 TSCTP strategy, the TSCTP purpose statement is to “assist partners in northwest Africa to increase immediate and long-term capabilities to address terrorist threats.”⁹ The State Department, DOD, and United States Agency for International Development (USAID) coordinate operations along the following five lines of effort as depicted in Figure 1: build law enforcement capacity, support efforts to counter terrorist financing, reinforce military capacity to counterterrorism, enhance regional capacity to secure borders, and counter the spread of violent extremist ideology.¹⁰ Despite what appears to be a comprehensive multi-agency regional approach to addressing violent extremism in the Sahel, the program has struggled to achieve anticipated results.

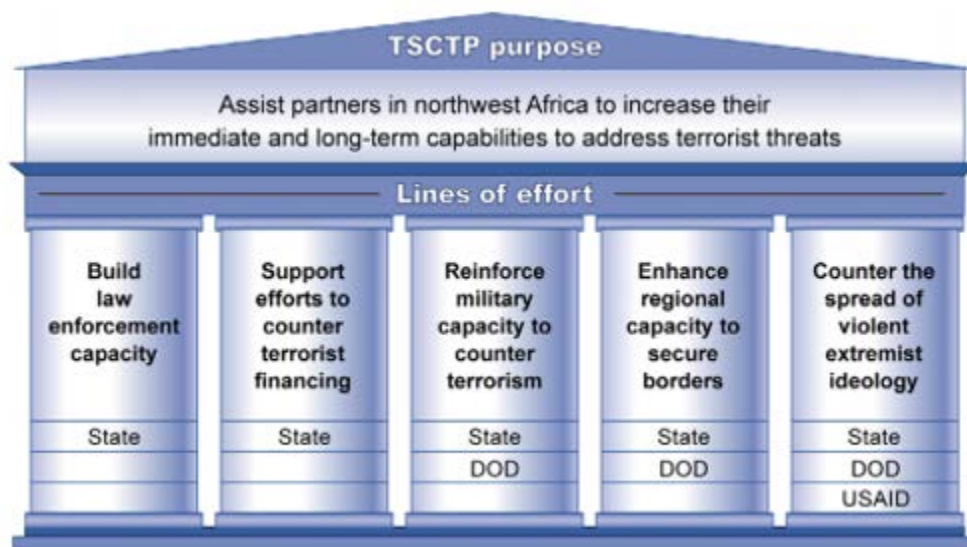


Figure 1. TSCTP Lines of Effort¹¹

If the recent surge in government-funded assessments of TSCTP is any indication, it would appear that government stakeholders may be acknowledging

⁹ “Combating Terrorism: U.S. Efforts in Northwest Africa Would Be Strengthened by Enhanced Program Management,” 21.

¹⁰ Government Accountability Office, “Combating Terrorism,” 20.

¹¹ Source: Ibid., 21.

the strategic shortcomings of TSCTP and attempting to regroup. In 2014 alone, three reports were published. The Government Accountability Office (GAO) provided a report to the U.S. Senate Committee on Foreign Relations, titled *Combating Terrorism: U.S. Efforts in Northwest Africa Would Be Strengthened by Enhanced Program Management*,¹² the National Defense University Center for Complex Operations and the Strategic Studies division of CNA corporation released a study titled *The Trans Sahara Counter Terrorism Partnership: Building Partner Capacity to Counter Terrorism and Violent Extremism*,¹³ and USAID contracted Dexis Consulting Group to write the *Trans-Sahara Counterterrorism Partnership Evaluative Study*.¹⁴ In general, these studies acknowledge that the TSCTP has made improvements in terms of interagency coordination, but cite numerous findings related to overall program management and tracking of funding and progress, which are not particularly relevant to this research. Rather, this research will attempt to zero in on operational findings highlighted in these reports and other academic assessments on U.S. counter violent extremism operations in northwest Africa.

Critics of the TSCTP tend to highlight three general themes. First, they argue that the program is overly focused on symptoms of violent extremism in the Sahel and Maghreb without properly addressing more foundational issue like governance, corruption, and state legitimacy, which would support more sustainable program impact. Second, many contend that despite its “whole-of-government approach” the TSCTP over-prioritizes DOD programs and therefore under-resources other programs focused on de-radicalization and religious tolerance initiatives.¹⁵ This thesis will take this one step further and argue that

¹² Government Accountability Office, “Combating Terrorism,” 21.

¹³ Warner, “The Trans Sahara Counter Terrorism Partnership,” 1.

¹⁴ Jeffrey Swedberg and Smith Steve, “Trans-Sahara Counterterrorism Partnership (TSCTP) Evaluative Study,” United States Agency for International Development, April 15, 2014, 1, http://pdf.usaid.gov/pdf_docs/PA00JXQ3.pdf.

¹⁵ David Andre, “United States Counterterrorism Strategy in the Trans-Sahara and the Rise of Salafi-Jihadism in the Sahel” (master’s thesis, Naval Postgraduate School, 2015), 8.

U.S. strategy in the Sahel and Maghreb should follow current trends in cyber security strategies and move beyond “whole-of-government” to a “whole-of-nation” approach to CVE in the Sahel. Finally, there is criticism that the TSCTP’s bilateral approach does not go far enough to address the transnational nature of violent extremism in the region and that more emphasis should be placed on establishing regional organizations to tackle regional violent extremism.¹⁶ This research supports this recommendation but will focus primarily on policy proposals as they pertain to Mali, while acknowledging that success in the region ultimately depends on a comprehensive regional approach.

B. A POLICY SHIFT FOR COUNTERING TRANS-SAHARAN VIOLENT EXTREMISM: WHOLE OF NATION VERSUS WHOLE OF GOVERNMENT

By focusing primarily on a whole-of-government approach (WoGA), programs like TSCTP are not fully leveraging non-government actors that are critical to successful CVE. Alternatively, the whole-of-systems approach (WoSA), and whole-of-nation approach (WoNA) that developed in response to the popular whole-of-government approach can help TSCTP achieve its goals. WoSA arose when civil society-based and humanitarian aid organizations, recognizing a limitation in WoGA, resisted attempts to be integrated as if they were government or state agencies, and proposed WoSA as an alternative. According to Alexander Klimburg, a senior adviser at the Austrian Institute for International Affairs, “these groups argued that it was equally important to encourage international horizontal cooperation of similar actors, such as those involved in humanitarian aid.”¹⁷ In contrast to the “3D” approach espoused by WoGA, and TSCTP for that matter, proponents of WoSA offered their own “3C” approach of “coherent, coordinated, and complementary.” Ultimately, whole of government and whole-of-systems approaches left little room for private sector actors, and so the whole-of-nation

¹⁶ David Andre, “United States Counterterrorism Strategy in the Trans-Sahara and the Rise of Salafi-Jihadism in the Sahel,” 9.

¹⁷ Alexander Klimburg, “The Whole of Nation in Cyberpower,” *Georgetown Journal of International Affairs* (n.d.): 172.

approach developed as a third dimension for bilateral or multilateral integration. Just as WoSA did for non-government or multinational public institutions, WoNA allows for horizontal integration between like private-sector actors as part of a three-dimensional framework of coordinated integration between government, non-government, and private-sector actors to achieve a common objective.¹⁸

As an analogy, recent cyber-security policy has embraced WoNA a requirement to maximize effects in an environment dominated by private-sector actors. In his attempt to develop a three-dimensional framework for cyber power, Klimburg acknowledges that “cyber power policy discussions can be informed by the experiences on the ground in Iraq. This is especially the case as both ‘cyber power’ and so-called ‘Fragile States’ policies have one variable in common: the importance of non-state actors.”¹⁹ And so, in a kind of circular logic, TSCTP policies would be wise to re-borrow from cyber power policy, what cyber power policy may have borrowed from fragile state policy, to address fragile state and governance issues in northwest Africa. In order to meet its full potential, the TSCTP must look beyond the single dimension of interagency cooperation between government actors and expand to a three-dimensional integration strategy that includes integrated systems capability as well as integrated national capability. This research is primarily interested in the latter.

C. AQIM AND THE DYNAMIC NATURE OF TRANS-SAHARAN TERRORIST GROUPS

Any endeavor to fully understand the complex multi-group dynamics at play in Mali and the broader Sahel must be grounded in an understanding of the history, interests, and motivations of the groups operating there. In general, and for the purpose of this research, there are three categories of actors whose interactions led to the 2012 coup and Islamist takeover and are still impacting the environment today. Those categories are Islamist violent extremist organizations

¹⁸ Klimburg, “The Whole of Nation in Cyberpower,” 172.

¹⁹ Ibid., 171.

(VEO), Tuareg independence groups, and to a smaller degree, the Malian central government and its military. Naturally, these groups are operating within or above the multicultural population of moderate Malians, who up until the coup had been lauded as a gold standard for post-colonization ethnic tolerance in West Africa, and who do not claim membership to any of the abovementioned categories. As one would expect, these categorizations are grossly over simplified, and as we will see, there are group dynamics at work within these categories and often the distinction between these categories can be blurred with respect to certain organizations and their objectives. Ultimately, this research will suggest that ethnomusicology can provide a useful tool as part of a comprehensive analysis of actors in a region of interest. What follows is a brief overview of the organizations relevant to the events in northern Mali, starting with a history of Al Qaeda in the Islamic Maghreb (AQIM) and the overall lack of regional consensus on how to eliminate or even label this organization.

Al Qaeda in the Islamic Maghreb is the latest manifestation of an armed Islamist movement that began in Algeria over two decades ago. Through its evolution, AQIM has demonstrated characteristics of, and in fact been labeled as, an Islamist insurgency, a jihadi terrorist movement, and a criminal organization. Today, the organization incorporates aspects of each, and the lack of consensus on how to properly define AQIM impedes the effort to reach a multinational consensus on how to respond to AQIM. Understanding AQIM's transformational stages, the driving forces behind evolution, and the influence each of these stages has on AQIM as an organization today, is critical to comprehending its objectives and thus critical to developing an effective course of action for dealing with the threat that AQIM poses nationally, regionally, and potentially, globally.

Although AQIM's initial manifestation, the Armed Islamic Group (GIA), was not formally founded until October 1992, its true origin dates back as far as 1982, as a result of disenfranchisement of Islamist Algerians both at home and abroad in Afghanistan. When the Soviet Union invaded Afghanistan in 1979, many Algerians heeded the resulting call to jihad and joined a wave of Arab–Afghan

fighters traveling to Afghanistan and Pakistan for the Islamic revolution. Within this group of Arab–Afghans from many countries across Africa, the Middle East, and Europe, the Algerians developed a strong in-group. According to Jamal al-Fadl, a former Al-Qaeda member, “The Algerians hung around in their group mostly. Not that they didn’t mix with other people but they mostly hung around with their group of Algerians...they were separate.”²⁰ As the Afghan jihad came to a close, 1,000 to 1,500 hardened mujahedeen veterans were forced to return to Algeria, sharing the bond of jihad and eager to continue the struggle.²¹

Meanwhile, in Algeria, discontent with the secular rulings of the Algerian government, Islamic militant Mustafa Bouyali formed the Algerian Islamic Movement (MIA), a secret terror cell engaged in guerrilla warfare against the government in the early 1980s.²² Bouyali’s guerilla struggle became popular among returning Afghan–Arabs and young Islamists dissatisfied with the lack of results achieved by Islamic political parties such as the Islamic Salvation Front (FIS). Ultimately, the lack of ontological security for Islamists under the secular government and a lack of faith in the ability of the FIS to achieve power set the stage for the joining forces of the MIA and the returning Arab–Afghans mujahedeen. Finally, in response to the secular government’s canceling of the 1992 general elections, Algerian Islamic militants joined for conference in October 1992 and created the GIA, which expanded rapidly and gained political strength.²³

Fueled by the jihadi motives of the many Afghan-Arabs in the GIA, the organization began to identify itself as an alternative to the weak FIS and began strictly interpreting Islamic law and exacting harsh revenge on those who did not support the GIA or its values. In addition to targeting locals sympathetic to the

²⁰ Evan F. Kohlmann, “Two Decades of Jihad in Algeria: The GIA, the GSPC, and Al-Qaida,” The NEFA Organization, n.d., accessed July 31, 2012, 2, <https://www.scribd.com/document/110365241/2-Decades-of-Jihad-in-Algeria>.

²¹ Ibid.

²² Ibid.

²³ Ibid., 4.

Algerian government, the GIA also began targeting foreign assets within Algeria that they determined to be threats to the GIA's new jihad, and by the mid-1990s, the GIA was indiscriminately killing Algerian civilians and kidnapping foreigners. As the GIA ideology became stronger, they began to reinforce their defined in-group by more broadly defining and attacking their out-group. In a 1996 communique, then GIA leader Djamel Zitouni stated,

The GIA has fought all Unbelievers of all ethnicities and groups... and so we have cut them off from the security of living in Algeria and allowed the spilling of their blood if they stay in our land...only those whose presence is essential to fight Muslims and Islam have stayed behind. Among those are politicians, military personnel, and missionaries.²⁴

By acknowledging the importance of denying security to the Unbelievers, defining the GIA out-group as simply any foreigner who remains in Algeria, and then using that out-group identification to justify the killing of innocents by any GIA members or supporters, this passage demonstrates the extreme transformation of the Algerian Islamist movement from the politically driven FIS to the fanatically driven GIA shortly before its collapse.

A combination of factors brought on the collapse of the GIA and the rise of the Salafist Group for Prayer and Combat (GSPC) in its place. Initially, the GIA employed terrorist tactics as an instrument to achieve specific objectives: kidnapping French Monks for ransom, hijacking French airliners for global attention, and attacking foreign interests in Algeria. Over time, however, the GIA adopted an organizational use of terrorism. Unlike the instrumental approach, the organizational approach assumes that group survival is the primary goal of individuals or leaders within the group, as opposed to ideology. Major characteristics of an organizational approach to terrorism include internal factionalism, targeting based on organizational dynamics versus ideology, and continued use of terrorism until the group disintegrates, even if it achieves minor

²⁴ Kohlmann, "Two Decades of Jihad in Algeria," 4.

goals.²⁵ We see all of these characteristics in the fall of the GIA. The Algerian government responded swiftly and severely to the GIA threat of terrorism and as a result, the reign of GIA leaders tended to be short,²⁶ and the rapid turnover drove factionalism due to complex loyalties and power struggles within the group. Furthermore, the organization became embroiled in “tit-for-tat” battles with Algerian government forces that did little to forward their cause.²⁷ As GIA leader Djamel Zitouni’s ideology and methodology became more rogue, he alienated more of his followers but continued to execute terrorist operations including massacres that killed innocent Algerian Muslims and even fellow jihadists. Following Zitouni’s assassination at the hands of fellow members of GIA, his successor, Antar Zouabri, continued GIA’s downward spiral, ultimately publishing a fatwa against the entire Islamic population of Algeria for not supporting GIA.

In the wake of GIA’s demise, a new organization, the Salafist Group for Prayer and Combat, formed in 1999 under the following ideology:

The GSPC is a military organization, following the Salafist creed and ideology, fighting in Jihad against the Algerian Regime which has abandoned Islam and its masters among the Jews and Christians (in order) to restore the rightly guided Caliphate and to implement Sharia... The GSPC is not limited by a narrow regional vision. It is important for us to spread the fragrance of jihad in every country and region, and ignite flames under the feet of the Jews, Christians, and apostates.²⁸

The GSPC enjoyed significant recruiting increases after Al Qaeda’s attack on 9/11, and their decision to become an African franchise for Al Qaeda in September 2006 was rooted in several aspects of social identity theory. For example, by exploiting a patron-client relationship with Al Qaeda, GSPC is now able to leverage funding and resources from Al Qaeda in return for executing operations

²⁵ David Tucker, “Instrumental and Organizational Approaches to Terrorism” (white paper, Naval Postgraduate School, n.d.), 1.

²⁶ Kohlmann, “Two Decades of Jihad in Algeria,” 4.

²⁷ Ibid., 8.

²⁸ Ibid., 12.

domestically in Algeria as well as in Europe. By returning to a more institutional terrorism structure, the GSPC has aligned its organizational ideology and operational targeting with those of the broader Al-Qaeda organization, thus continuing the expansion of its “outgroup” beyond the population of Algeria.

Finally, the evolving nature of the GSPC and the lack of consensus on how to categorize the Algerian jihadist movement creates problems for efforts to counter the organization. First, the Algerian government has realized benefits through the existence of a global terrorist organization within its borders. Algeria has enjoyed the surge in counterterrorism efforts, tripling its defense budget in just three years to \$5.3 billion in 2009. U.S. military exports to Algeria nearly quadrupled in the decade after 9/11, reaching \$800 million.²⁹ Furthermore, the Algerian military used the presence of a credible but intangible jihadist threat within Algeria to validate its existence and perpetuate the authoritarianism of the Algerian government.³⁰ As the influence of AQIM spills beyond the borders of Algeria in to the Maghreb and Sahel regions of Africa, other African nations react to AQIM actions in accordance with their own perception of the AQIM organization, which in turn puts pressure on Algeria to take a less militaristic approach to AQIM. Until the regional forces in the Sahel and Maghreb can find common ground and demilitarize their response to AQIM, it is unlikely that they will effectively address AQIM.

Ultimately, three Islamic armed groups controlled the north of Mali from April 2012 to January 2013: AQIM, its West African splinter-group; the Movement for Oneness and jihad in West Africa (MUJAO); and an Islamist militia named Ansar ud-Dine. The lines between these groups are blurred, and according to Tinariwen band manager-turned-journalist, Andy Morgan, “each have their own back story, ethnic mix, leaders and agenda, but there’s evidence of considerable

²⁹ Laurence Aida Ammour, “Regional Security Cooperation in the Maghreb and Sahel: Algeria’s Pivotal Ambivalence,” *African Security Brief*, no. 18 (February 2012): 5.

³⁰ Ibid.

coordination and resource sharing between them.”³¹ Having discussed AQIM, and its Algerian roots, let us consider its black African and Tuareg offshoots, MUJAO and Ansar ud-Dine, before moving on to the more moderate Tuareg independence organizations involved.

In 2011, the Movement for Oneness and jihad in West Africa (MUJAO) broke from AQIM allegedly due to the marginalization of black Africans under the primarily Algerian AQIM leadership.³² Ironically, parallels might be drawn between this AQIM split and the divide in Mali between black Africans in the south and Tuaregs in the north. MUJAO set out to spread jihad further in to West Africa but have primarily been operating in northern Mali and southern Algeria since the split. A 2012 video made ideological references to the likes of Osama bin Laden and Taliban leader Mullah Omar, but primary emphasis was made on historic West African Islamic leaders claiming, “We are the ideological descendants of Ousman Dan Fodio, El Hadj Omar Tall and Amadou Cheikhou, who all fought colonial invaders... Today, we are inaugurating jihad in West Africa.”³³ In July 2012, under the leadership of former Mauritanian criminal Hamada Ould Mohamed Kheirou, MUJAO took the eastern city of Gao by ejecting the Tuareg nationalist MNLA via fierce fighting. MUJAO held power in Gao under strict Sharia law until January 26, 2013, when French troops forcefully removed them, with support from the Malian army.³⁴

The third and most pivotal Islamist group controlling the north was Ansar ud-Dine or “Defenders of the Way,” led by Iyad Ag Ghaly, a legendary Tuareg leader from the dominant “aristocratic” tribe of the Ifoghas, who had effectively

³¹ Morgan, *Music, Culture and Conflict in Mali*, 7.

³² William Lloyd George, “Mali’s Irrevocable Crisis,” *Al Jazeera*, April 6, 2012, <http://www.aljazeera.com/indepth/opinion/2012/04/201241572956363410.html>.

³³ AFP, “New Qaeda Spin-off Threatens West Africa,” *Ahram Online*, accessed September 15, 2016, <http://english.ahram.org.eg/NewsContent/2/9/29968/World/International/New-Qaeda-spinoff-threatens-West-Africa.aspx>.

³⁴ Morgan, *Music, Culture and Conflict in Mali*, 9.

ruled the far northeast of Mali since the 1800s.³⁵ Ag Ghaly led the Tuareg rebellion in 1990 and ultimately signed the peace accord with the Malian central government, securing numerous promises of development for the northeast that in the end were never fulfilled by the central government.³⁶ Ag Ghaly established himself as a legitimate political figure in Mali and the Sahel, and over the coming years negotiated with GSPC on behalf of the Malian government to secure the release of 15 European hostages in northern Mali. He also represented the Malian government as a special advisor to the Malian consulate in Saudi Arabia.³⁷

Ag Ghaly had become an important node in a vast network of power and influence that stretched from Jeddah to Nouakchott, from Tripoli to Niamey and included presidents, ministers, military chiefs, secret service agents, jihadists, tribal leaders, war lords and mafia. In short, he was a man who could not be ignored.³⁸

Unfortunately for the people of northern Mali, the growing Tuareg independence movement in 2011 did just that. The new groups of young Tuaregs streaming into Mali from the crumbling Libyan Army converged with young Tuareg activists in the north and planned for the coming rebellion. For ethnic and historical reasons, Iyad Ag Ghaly was sidelined from the endeavor. Thus, he formed Ansar ud-Dine and allied with AQIM, leveraging the relationships, wealth and influence he had built over the previous decades. And so it was in the spring of 2012, that

MUJAO became the masters of GAO, AQIM of Timbuktu and Ansar ud-Dine of Kidal. Ansar ud-Dine with its “local” Tuareg face, however, became a convenient “front” organization for the mainly foreign forces of AQIM and MUJAO throughout the territory. The

³⁵ Morgan, *Music, Culture and Conflict in Mali*, 9.

³⁶ Ibid.

³⁷ Ibid 10.

³⁸ Ibid..

three organizations divided the spoils. The Salafist take-over of northern Mali was complete.³⁹

D. TUAREG INDEPENDENCE MOVEMENT

At the heart of the events that unfolded in March 2012 was a decades-long conflict between the disenfranchised Tuaregs in the north and the primarily black African central government in Bamako. The influx of Tuareg fighters from Libya, laden with heavy weaponry, provided fuel to the fire of a long and enduring list of Tuareg grievances. On January 17, 2012, the Tuareg-led National Movement for the Liberation of Azawad (MNLA), rebelled in the town of Menaka in east Mali on the border of Niger, opening just another chapter in a Tuareg resistance that began in 1963 when Tuaregs rebelled against Bamako.⁴⁰ The rebellion broke out again in 1990 and as recently as 2006.⁴¹ The 2012 uprising put pressure on Malian military stationed in the north who were feeling isolated and under resourced. Finally, in March, Malian Army Captain Amadou Sonogou led a successful military coup against the central government driving the democratically elected president Amadou Toumani Toure into hiding, less than a month before scheduled elections would have forced his departure anyway. Seeing their opportunity, the MNLA declared an independent Tuareg Azawad state in the absence of a central Malian government. A flag of Azawad was established, Tuaregs took to social media to celebrate their new Tuareg national identity, and for a short while, the Tuaregs of northern Mali had regained the glory of the Berber Empire. The glory was short-lived. Tensions grew between the MNLA and their more extreme bedfellows, and as mentioned earlier, the MNLA lost control of northern Mali's cities to Ansar ud-Dine and MUJAO following the Battle of Gao.

So, to summarize in the most general terms, the five major players leading up to the 2012 Islamist takeover were: 1) the "Algerian" jihadist group, AQIM, 2)

³⁹ Morgan, *Music, Culture and Conflict in Mali*, 12.

⁴⁰ Ibid., 8.

⁴¹ Ibid.

the “black African” jihadist group, MUJAO, 3) the “Tuareg” jihadist group, Ansar ud-Dine, 4) the “moderate” Tuareg independence group, MNLA, and 5) the “black African” central government of Mali. One might be forgiven for lumping Tuareg MNLA factions in with their fellow Tuareg Islamist extremists, but to do so was to miss the opportunity to address valid grievances among moderate but disenfranchised Tuaregs and to therefore leave a ripe population for the Salafi jihadists to recruit, mobilize, and ultimately take advantage of in northern Mali. Tuaregs in the north were hungry for change, perhaps even a form of jihad, but not the one they got...

That Jihad was nurtured in an entirely different mental landscape, one that had been hardened and brutalized by years of guerrilla conflict in Algeria and fuelled by an extreme and pitiless worldview more common to places like Pakistan, Afghanistan, Iraq, Iran, Yemen and Saudi Arabia than Mali. The population of the north craved for security but not religious fanaticism. However, in the end, they had no choice in the matter.⁴²

E. THESIS OVERVIEW

Ultimately, this research recommends a three-pronged map-lens-bridge framework for utilization of ethnomusicological analysis as an innovative element of a revamped policy approach to counterterrorism in northwest Africa. As a “map,” ethnomusicology research in the combined digital-analog communications environment of the Sahel provides a tool to map networks and human geography that can be useful in many complex environments, but particularly in the Sahel, where music is a foundational element of the culture, past and present. As a “lens,” ethnomusicology provides yet another analysis framework by which researchers and policy makers can seek to understand a particular culture or community. And finally as a “bridge,” ethnomusicology and engagement through music provide a potent tool for energizing public- and private-sector exchanges through music and the music industry. This research suggests the new strategy must be a whole-of-nation versus whole-of-government approach, and the

⁴² Morgan, *Music, Culture and Conflict in Mali*, 26.

framework presented herein represents just one of many tools that could be leveraged within this approach.

First, this thesis builds a foundational understanding through a review of the literature on ethnomusicology as an academic field, the psychological effects of music on individuals and groups, and the communication theory as it pertains to the Sahel and Maghreb. Then, the concepts borrowed from each of these disciplines will be synthesized in an attempt to build a framework for applying ethnomusicology to countering violent extremism in a map-lens-bridge approach to lines of effort. At the heart of this research are three models for concept validation that are presented to show how digital music and associated digital media can be analyzed and tracked to map networks. Then, a brief review of Malian music is presented to demonstrate the value of ethnomusicology research as a lens to understanding the musical messaging patterns of a population. Finally, the thesis explores citizen diplomacy and whole-of-nation options for leveraging music as a bridge for engaging at-risk populations. Ultimately, these findings are coalesced into a brief set of recommendations for TSCTP and other policy initiatives seeking to counter violent extremism in the musically rich environment of the Sahel.

III. LITERATURE REVIEW

A. THE HARMLESS DRUDGE: UNDERSTANDING THE HISTORY OF ETHNOMUSICOLOGY

Ethnomusicology's roots can be traced back to the 1880s and 1890s when activity in the field began with studies conducted primarily in the United States and Germany. In Germany, scholars focused their efforts on musical sound and structure, treating sound as isolated or a system operating per its own internal rules. Additionally, the German school explored the origins of music through a framework of classic social evolution, which was popular at the time. Meanwhile in the United States, an alternative approach arose almost in reaction to the German social evolutionary approach. In the United States, emphasis was placed less on the structural components of sound and music and more on the cultural role of music and its function within the larger context of social and cultural organization of man.⁴³ Meanwhile, the behavioral understanding of man at the time was limited primarily to Western and Far Eastern cultures, and anthropology offered an opportunity to expand comparative analysis of human behaviors beyond Europe and eastern Asia. Early ethnomusicologists adopted similar focus, and hence an emphasis on music within non-Western cultures arose.⁴⁴

This thesis proposes that the methods of inquiry and frameworks of analysis used by ethnomusicologists can be directly and indirectly applied to counterterrorism analysis and regional security studies. A notable trend in early ethnomusicology literature is a focus on understanding why ethnomusicologists study music in the context of broader human culture, and what defines ethnomusicology as a social science versus a humanity, or at the very least a unique combination of both. Ethnomusicologist Bruno Nettl referred to this

⁴³ Alan P. Merriam, *The Anthropology of Music* (Evanston, IL: Northwestern University Press, 1964), 3–4.

⁴⁴ *Ibid.*, 4.

introspection within the new discipline as the “harmless drudge,” and touched upon it in his book, *The Study of Ethnomusicology: Thirty-One Issues and Concepts*.

Alan Merriam began his innovative ethnography of Flathead music thus: “All people, in no matter what culture, must be able to place their music firmly in the context of the totality of their beliefs, experiences, and activities, for without such ties, music cannot exist” (1967a: 3). Charles Seeger (1977: 217) wrote in 1946 that the ultimate purposes of musicology are “the advancement of knowledge of and about music [and] of the place and function of music in human culture.” John Blacking ended his most influential book thus: “In a world such as ours ... it is necessary to understand why a madrigal by Gesualdo or a Bach Passion, a sitar melody from India or a song from Africa ... a Cantonese opera, or a symphony by Mozart, Beethoven or Mahler, may be profoundly necessary for human survival” (1973:116). Three different but equally emphatic ways of expressing the same principle: for understanding music, the significance of its relationship to the rest of culture is paramount.⁴⁵

Written in 1964, when the then relatively new field of combined anthropology and musicology was really coming into its own, Alan P. Merriam’s *The Anthropology of Music* provides a succinct analysis of the ethnomusicology discipline. Merriam’s writing attempts to define the discipline and outline the methods of inquiry available to ethnomusicologists. It is punctuated by relevant examples of his own findings and those of other ethnomusicology scholars, like this 1960 passage from William G. Haaq highlighting the relationship between culture and art, a concept that is fundamental to this research.

Artists are relentlessly grasped by the strongest but subtlest force that moves the world, that is, cultural determinism. Every change in the artistic taste of the times is engendered and nourished in a realm beyond the “minds” of artists... That place, of course, is the

⁴⁵ Bruno Nettl, *The Study of Ethnomusicology: Thirty-One Issues and Concepts*, 2nd ed. (University of Illinois Press, 2005), 237.

culture—the normative, stylistic, consistent behavior of which the artist is a participant and a partaker.⁴⁶

In his literature, Merriam walks readers through the fundamental concepts and responsibilities of ethnomusicology and its origins as a merger between the fields of musicology and anthropology. Further, he proposes a theoretical framework based on the relationship between concepts, behavior, and music, and the learning feedback that occurs among these elements.

B. A THEORETICAL RESEARCH MODEL FOR ETHNOMUSICOLOGY AS IT RELATES TO COUNTERTERRORISM

In his 1964 work “The Anthropology of Music,” ethnomusicologist Alan Merriam set out to propose a theoretical model for ethnomusicology research. In order to develop this model, Merriam, like many of his contemporaries, devotes a significant portion of his writing to analyzing ethnomusicology as a discipline and understanding why ethnomusicologists do what they do. He does this by distilling his analysis down to a framework of methodology, practice, and responsibilities.

Merriam begins by identifying three stages of ethnomusicology methodology: data collection, data analysis, and application of results. By identifying these stages, Merriam is attempting early on to establish ethnomusicology research methods founded in rigor rather than intuition and define ethnomusicology’s role as a bridge between anthropology and musicology, or the humanities and social sciences, based on defined scientific research methodology.

His analysis of ethnomusicology and the distinction between the humanities (the study of culture made by humans) and the social sciences (the study of how humans live together) can inform modern counterterrorism research in two ways.

The ultimate interest of man is man himself, and music is part of what he does and part of what he studies about himself. But equally important is the fact that music is also human behavior, and the

⁴⁶ Merriam, *The Anthropology of Music*, 28.

ethnomusicologist shares both with the social sciences and the humanities the search for an understanding of why men behave as they do.⁴⁷

First, it can be applied comparatively as a standard to which counterterrorism research might aspire as a “young” academic field. Second, it can be applied directly as ethnomusicological research can be scientifically applied to a region through data collection, analysis, and application, to identify and address the potential for violent extremism. This research focuses on the latter.

Data collection, according to Merriam, involves the complex relation of theory to method, research design, methodology, and technique, not unlike other disciplines more commonly regarded as established academically rigorous disciplines. The subsequent analysis of the collected data involves two kinds of analysis for the ethnomusicologist. First, the ethnographic and ethnologic materials must be collated to establish the practices, concepts, and behaviors present as they relate to the hypotheses set forth in the research problem. Second, the actual musical sound materials collected must be subjected to technical laboratory analysis and structural analysis. Finally, having collected and analyzed data pertinent to an established research problem, the ethnomusicologist must apply the results of the analysis to relevant problems. As in other disciplines, the researcher seeks to apply the results of his/her research to ethnomusicology specifically, but more broadly to the social sciences and the humanities. What sets ethnomusicology apart in the application stage, according to Merriam, is the necessity to join two data types, the anthropological and the musicological, to effectively apply the research to relevant problems.⁴⁸

Merriam goes on to assert that since a discipline can be defined in terms of what its practitioners do, then in turn the actions of a discipline’s practitioners can inform the specific aims and purposes of the discipline, or “why” its

⁴⁷ Merriam, *The Anthropology of Music*, 16.

⁴⁸ *Ibid.*, 8.

practitioners do what they do. To this end he proposes four approaches or actions demonstrated by ethnomusicologists that help define the overall purpose of the ethnomusicology field. First, according to Merriam, ethnomusicologists defend and promote non-Western music. This defensive or protective approach toward non-Western culture, which ethnomusicology shares with anthropology, serves to counter the ethnocentric idea that the music of other cultures is less worthy of research or analysis. Per Merriam, “ethnocentrism must be attacked wherever it is found.”⁴⁹ Is it not then possible to draw a corollary to modern counterterrorism research, in which analysts seek to understand the grievances of foreign or non-Western populations and must therefore attack ethnocentricity in their approaches in order to be successful?

A second proposed purpose of ethnomusicology is the effort to record or study disappearing “folk” music before it is gone. While a direct analogy cannot necessarily be identified with counterterrorism research, the implied sense of a “race against time” is certainly a facet of both fields. On the one hand, ethnomusicologists are racing to capture data that they fear may be temporary in nature; on the other hand, counterterrorism research is driven largely by a desire to gain understanding of a situation quickly enough to identify and eliminate an impending threat.

The third proposed purpose, which is most directly applicable to this research, is that ethnomusicologists strive to understand music as a means of communication that can be leveraged to advance understanding and communication between communities or cultures. Taking. Taking what appears to be an ominously Cold War approach to this effort to understand communication, Mantle Hood predicted:

In the latter half of the Twentieth Century it may well be that the very existence of man depends on the accuracy of his communications. Communication among people is a two-way street: speaking and listening, informing and being informed,

⁴⁹ Merriam, *The Anthropology of Music*, 8.

constructively evaluating and welcoming constructive criticism. Communication is accurate to the extent that it is founded on a sure knowledge of the man with whom we would hold intercourse.⁵⁰

This notion that truly understanding the sender of a message is instrumental to understanding the message itself is fundamental to counterterrorism and regional security studies and implies that in order to really identify, understand, and address the grievances expressed by populations at risk to radicalization, we must achieve an understanding of, and empathy with, that population.

Ethnomusicologists are careful to acknowledge that although certain musical relationships such as the octave or the fifth are universally regarded as stable focal tones across cultures, music is not in fact a “universal language.” Instead, the communicative properties of music are often only effective within a given “music community” and in many cases, a cross-cultural diversity of music styles tends to stress barriers rather than communicability between communities. An experiment conducted by Robert Morey in 1940, in which he presented Western classical pieces considered by Western audiences to express fear, reverence, rage, and love to native West Africans, demonstrated that the emotive messaging of music tends to be lost in translation across cultural divides.⁵¹ To that end, ethnomusicologists seek to increase understanding of how communication through music functions within specific music communities. This research explores whether the same holds true for messaging of grievances across intergroup cultural divides, and whether music, or a better understanding of music, may provide a lens through which analysts can better identify and address the grievances of groups or individuals that may be vulnerable to radicalization. Armed with this understanding of the limitations of communicating with music across intergroup cultural divides, counterterrorism practitioners might reconsider somewhat misguided attempts to counter extremist messaging

⁵⁰ Merriam, *The Anthropology of Music*, 10.

⁵¹ *Ibid.*, 11.

through music with attempts at “authentic” counter-messaging via that medium. This will be visited again as part of the discussion on music and its ability to promote violent extremism.

Finally, Merriam points to a “catholicity” or universality to the study of music, which is to say, music can mean many things to many people, and similarly the individual drive to study the music of other cultures can vary from researcher to researcher.⁵² He cites Bruno Nettl, “In summary, then, to all people interested in music and to all interested in primitive culture, the study of this music offers new fields for exploration and a wider range for reflection.”⁵³ In this sense, the application of ethnomusicology recommended in this thesis could be considered just an extension of the range of reflection proposed by Nettl and his contemporaries over 60 years ago.

Alternatively, on his path toward a theoretical model for ethnomusicology, Merriam further identifies three responsibilities of the ethnomusicologist: the technical study of music to include structure, sound, etc., the study of human behavior and social behavior, and the responsibility to inform other fields of research.

In short, the problems of ethnomusicology are neither exclusively technical nor exclusively behavioral. Nor is ethnomusicology an isolated discipline concerned only with esoterica which cannot be understood by any save those who study it. Rather, it seeks to combine two kinds of study and to contribute the results of its research to the solution of a broad spectrum of problems both in the humanities and in the social sciences.⁵⁴

So, having defined ethnomusicology in terms of its methodology, objectives, practices, and responsibilities, Merriam ultimately synthesizes these concepts into a concise theoretical research model involving study on “three analytic levels—conceptualization about music, behavior in relation to music, and

⁵² Merriam, *The Anthropology of Music*, 13.

⁵³ Ibid., 14.

⁵⁴ Ibid., 15.

music as sound itself. The first and third levels are connected to represent the constantly changing, dynamic nature exhibited by all music systems.⁵⁵

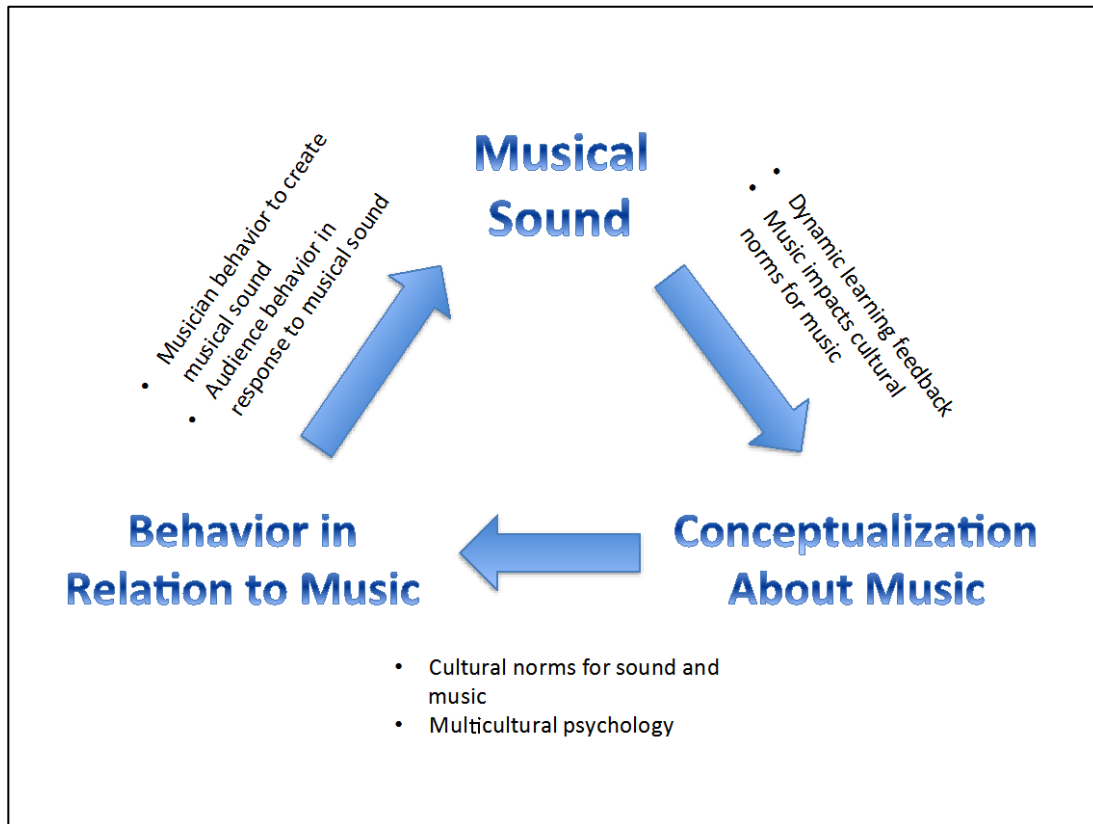


Figure 2. Ethnomusicology Theoretical Research Model

The third level, the music itself, is fairly straightforward, and while the study of the structure, patterns, etc., of musical sound is the primary focus of musicologists the world over, it does not contribute significantly to this research, except of course, in that the music must be regarded as a product of the behaviors that create it. At the behavioral level, Merriam begins to identify concepts in his theoretical model that might be applied to modern regional security studies. Specifically, he identifies three major kinds of behavior: physical, social, and verbal. Physical behavior can be considered both the physical

⁵⁵ Merriam, *The Anthropology of Music*, 32.

behavior required to produce sound as well as the physical response of an individual to the sound. Social behavior as well can be subdivided into two categories: the social behavior of the musician as an individual creating music and of the non-musician as an individual responding to the music at a music event or in another social context.⁵⁶ This level of behavioral analysis becomes potentially relevant to security studies by providing insight into norms or shifts in musical behavior of the region that might indicate a change in the conceptual inputs that may be affecting the musical styles or narratives of the region. The shifts in musical style could then provide an indicator of a change in the socio-cultural dynamics within the region.

The third conceptual level of Merriam's framework focuses specifically on the notion of musical concepts as they pertain to the creation of music. For the purpose of this research, this conceptual analysis can be reasonably expanded to include the social concepts that no doubt influence the messaging of a region's musical expression and the response of the members of a society to the music. This final notion of a response to the music, or feedback from level one of the model to level three of the model, is perhaps the most significant element of Merriam's model. In short, the musical product is judged by both listener and performer, and if the response is positive, the behavioral and conceptual elements will be reinforced within the music system. Alternatively, if the music is judged negatively or the intended response is not achieved, the behavioral and conceptual elements of the music system will be altered until the intended outcome is realized. "Thus, there is a constant feedback from the product to the concepts about music, and this is what accounts both for change and stability in a music system. The feedback, of course, represents the learning process both for the musician and for the non-musician, and it is continual."⁵⁷

⁵⁶ Merriam, *The Anthropology of Music*, 33.

⁵⁷ Merriam, *The Anthropology of Music*, 33.

In summary, is it possible that Merriam's theoretic model for ethnomusicology could be applied indirectly to regional security studies as a conceptual model to understand what violent extremists do (the "music"), how they do what they do (the "behavior"), and why they do what they do (the "concept")? Is it also possible, then, to apply this ethnomusicology model directly to a region of interest and work it backward starting with a deep understanding of the music of the region, to then understand the individual and social behavior creating that music, and finally gain a more nuanced understanding of the concepts driving the musical creation in the region as it relates to expressing potential social grievances that might give rise to violent extremism? To answer these questions, one must first consider the psychological role music can play in promoting violent extremism and in influencing the psychology of intergroup relationships.

C. THE PSYCHOLOGY OF MUSIC

The first step—especially for young people with energy and drive and talent, but not money—the first step to controlling your world is to control your culture. To model and demonstrate the kind of world you demand to live in. To write the books. Make the music. Shoot the films. Paint the art.

—Chuck Palahniuk⁵⁸

The more researchers study the effects of music on society, culture, human spirit, and even the human brain itself, the more the research proves what we perhaps knew all along: music and sound have an inextricable psychological connection to humanity and can significantly influence human attitudes and behaviors.⁵⁹ The psychological effects of music, once understood, can potentially be used to better appreciate the psychosocial landscape of a population and perhaps influence intergroup relationships within that population

⁵⁸ "Chuck Palahniuk on Taking Control of Culture," Big Think, October 9, 2014, <http://bigthink.com/words-of-wisdom/chuck-palahniuk-on-taking-control-of-culture>.

⁵⁹ Daniel J Levitin, *This Is Your Brain on Music: The Science of a Human Obsession* (New York: Plume, 2007).

to reduce the potential for violent extremism. First, this paper will discuss the documented psychological effects of music, from the physiological effects on the brain to the behavioral and attitudinal influences on individuals to its ability to represent and influence group cultural dynamics. Second, this paper will explore the role of music in intergroup relationships through the psychological themes of irrationality, materialism, identity, and subjective justice.⁶⁰ Finally, as it pertains to violent extremism and radicalization, we explore the use of music to forge identity, air grievances, commemorate heroes and events, and to label and dehumanize enemies. This paper proposes that through music, outsiders of a group can better understand the psychological motives of the group, and members within the group can influence the psychology to improve intergroup relationships and prevent potential conflict. Ideally, the knowledge gained through this analysis can be used to determine how to best leverage the influence of music to counter extremism across the entire engagement spectrum, from tracking and targeting bad actors to constructively engaging at-risk communities to prevent radicalization and promote stability.

a. *Psychological Impact of Music*

Ethnomusicologists have long understood the value of music as a window into the soul of a community or culture. The entire progression within the academic field from mere comparative musicology to ethnomusicology demonstrates the understanding over time, that to truly understand the music, you must understand the culture, and vice-versa.⁶¹ Through the study of music, Ethnomusicologists pursue seemingly contradictory objectives, according to Bruno Nettl. “They search for universals, hoping to generalize intelligently about the way in which the world’s cultures construct, use, conceive of music,” and

⁶⁰ Fathali M. Moghaddam, *Multiculturalism and Intergroup Relations: Psychological Implications for Democracy in Global Context*, 1st ed. (Washington, DC: American Psychological Association, 2010), 48.

⁶¹ Nettl, *The Study of Ethnomusicology*, 22.

“they try to understand human music in the context of human culture as a unitary phenomenon.”⁶²

b. Analyzing Music and Imagery According to the Psychological Themes of Multiculturalism and Intergroup Relations

Music provides researchers access to the collective psychology of intergroup relationships and multiculturalism in two ways. First, analysis of the music being produced by a society reflects the current and historical psychological landscape or cultural identity of that society and its members. Second, in that music has a significant impact on the psychology of individuals as well as groups, music can serve as a force to shape the psychological path of a group and how it interacts with other groups moving forward. Therefore, by using a framework of psychological limitations to intergroup organizations, one can analyze the music and associated imagery being created by groups within a multicultural society to learn about the intergroup relationships within the society. The psychological themes presented by Dr. Fathali Moghaddam in *Multiculturalism and Intergroup Relations: Implications for Democracy in Global Context* provide an effective framework for analyzing the potential impacts of music in regions like the Sahel. These four intergroup psychological themes include irrationality, materialism, identity, and subjective justice.

Irrationality—The irrationalist perspective presents the idea that behavior between groups is shaped by unconscious motives, desires, fears, etc.⁶³ Oftentimes, humans will apply false rational explanations to justify conflict between groups based on these unconscious motives. Simply put, humans are quick to rationalize irrational actions.⁶⁴ Moghaddam points out that “people come to see themselves as members of groups that are in fundamental respects different from other groups, but actually in many cases the intergroup differences

⁶² Nettl, *The Study of Ethnomusicology*, 23.

⁶³ Moghaddam, *Multiculturalism and Intergroup Relations*, 48.

⁶⁴ Moghaddam, *Multiculturalism and Intergroup Relations*, 50.

are minor. This narcissism of minor differences involves the construction of differences even when objectively there are none.”⁶⁵ Music can serve as a useful tool to propagate this often dangerous irrationality. By portraying irrational ideas through the accepted medium of music, a group can mobilize its members toward otherwise irrational actions. Irrational ideas may be “received less critically by the target audience when set to music because it engages them on a more emotional level.”⁶⁶ A stark example of this exists in the music of Simon Bikindi, the Rwandan Hutu singer whose song “I Hate These Hutus” called for the censure of moderate Hutus or those who tolerated Tutsis. This music was broadcast during the 1994 genocide alongside messages calling for the hunting down and killing of Tutsis.⁶⁷ Fortunately, for the same reasons that music can effectively promote irrational ideas, it can also effectively promote more rational intergroup dialogue. Mark LeVine’s book *Heavy Metal Islam* provides accounts of music as a force to promote tolerance, reconciliation, and positive intergroup exchanges.⁶⁸ An awareness of the existence of this psychological irrationality and the ability to potentially detect and counter its influence through music may facilitate more productive and peaceful intergroup relations, particularly in populations at risk to radicalization and violent extremism.

Materialism—The materialist theories of intergroup relationships explore the perceived material inequalities between groups. Therefore, the tendency of groups toward either sharing or competing for limited group resources can likewise drive a tendency toward peace or conflict, respectively.⁶⁹ In considering materialist theories, we consider the shared resources of the group. However, as the importance of materialism and individual wealth becomes more prominent in

⁶⁵ Ibid., 50.

⁶⁶ Anthony Lemieux and Robert Nill, “The Role and Impact of Music in Promoting (and Countering) Violent Extremism,” in *Countering Violent Extremism: Scientific Methods and Strategies*, ed. Laurie Fenstermacher (white paper, Topical Strategic Multi-Layer Assessment Multi-Agency and Air Force Research Laboratory, 2011), 145.

⁶⁷ Ibid., 144.

⁶⁸ Ibid., 148.

⁶⁹ Moghaddam, *Multiculturalism and Intergroup Relations*, 48.

developing nations, one can expect a corollary rise in materialist intergroup psychological influences. Furthermore, the rise of the digital age has spawned a vibrant digital youth culture in the cities and countryside of Mali, where youth are sharing music and digital imagery they have created online. Among other things, a strong hip-hop influence can be seen as the Western African culture meets the music and culture of the West. With it, hip-hop brings the same themes of individual and group materialism that define its image in the West. An analysis of open-source imagery found on the Facebook pages of Mali youth reveals hundreds of images like those in Figure 3, created and shared on computers and cell phones. Images that, like the musical culture they represent, glorify this sense of individual materialism. Here we see intergroup contact on the macro level, between East and West, potentially influencing intergroup materialist values on a micro or individual level. Likewise, this promotion of individual materialist values through music and culture at the individual level can only serve to amplify the effects of materialist psychological issues at the intergroup level.



Figure 3. Mali Youth Culture Imagery⁷⁰

Identity—Identity theories of intergroup exchanges focus on how individuals view themselves within the group and the groups they belong to compared to those to which they do not belong.⁷¹ Identity theories relate to intergroup relationships in that humans will consistently turn to in-group/out-

⁷⁰ Source: sahel-digital-art, accessed October 2, 2013, <http://www.sahel-digital-art.org/>.

⁷¹ Moghaddam, *Multiculturalism and Intergroup Relations*, 48.

group membership to answer the question, “What sort of person am I?”⁷² Dr. Moghaddam cites three reasons for the recent focus on identity as it pertains to intergroup dynamics. The first is globalization: the increased movement of people and goods across the globe has driven a corresponding increase of interaction between people from diverse groups, who previously would not have interacted.⁷³ The second is the proliferation of mass media. With the advent of television and even more so, the internet, groups are exposed to foreign ideals and norms in their own living rooms. With this exposure come new questions about one’s own identity and values. As we have shown in the previous section on materialist views, the direct influence of Western hip-hop culture on Malian youth is reflected in the music and imagery they create and post online. Likewise, those images and songs are accessed and consumed by other foreign groups, and the result is a robust collaborative multiculturalism on the internet. The third and final reason for the resurgent focus on identity is the paradoxical rise in mobilization of minorities. Despite the abovementioned globalization and mass media phenomena, ethnic allegiances have not diminished with modernization.⁷⁴ Here again, music and youth culture play a potential role in this resistance to ethnic dilution in the face of increased globalization. Especially among adolescents, music is pivotal in establishing and maintaining social identity and group boundaries.⁷⁵

Subjective justice—subjective justice theories consider the subjective perceptions of fairness between and within groups, regardless of the actual presence of objective justice or injustices. Subjective justice theory proposes that individual and group psychological tendencies toward seeing the world as just can facilitate the sustainment of significant injustices.⁷⁶ The different subjective

⁷² Ibid., 89–90.

⁷³ Ibid., 19.

⁷⁴ Ibid., 92.

⁷⁵ Lemieux and Nill, “The Role and Impact of Music in Promoting (and Countering) Violent Extremism,” 145.

⁷⁶ Moghaddam, *Multiculturalism and Intergroup Relations*, 48.

justice theories discussed by Moghaddam, such as just-world theory, equity theory, and relative deprivation theory, all have two things in common: their reliance on relatives versus absolutes and the importance of individual and group perceptions of justice.⁷⁷ Importantly, this perception of relative deprivation is categorized into two types: egoistic deprivation and fraternalistic deprivation, where the former is a feeling of deprivation by the individual relative to the rest of the group and the latter is a feeling of deprivation of a group relative to other groups.⁷⁸ In the example of Mali and recent intergroup conflict there, the subjective justice theory certainly plays a critical role. Historically, the Tauregs in the desert region of northern Mali have perceived fraternalistic deprivation that has been fueled by underrepresentation in the central government of Mali and a longstanding desire for an independent Taureg state, referred to by Tauregs as Azawad and spanning the Sahel regions of Mauritania, Mali, and Niger. This combined with a sense of fraternalistic deprivation among the southern Bambara population of Mali, who felt generally dissatisfied with the ineffective democracy within Bamako, created a unique environment in which a sequence of events led to a quick decline into harsh Sharia law in the north following a military coup in the south.⁷⁹ The musical behaviors associated with subjective theory as they pertained to the situation in Mali will be discussed in the following section.

D. MUSIC IN INTERGROUP DYNAMICS

Having touched briefly on the psychological theories of intergroup relationships, one must consider the ways in which music is commonly used to influence individual and group psychology and how those uses relate back to the abovementioned psychological themes. According to research done by Dr. Anthony Lemieux, the four primary ways in which music can be used by violent extremist groups are as follows: 1) to label and dehumanize enemies, 2) to air

⁷⁷ Ibid., 115.

⁷⁸ Ibid., 117.

⁷⁹ David Crocker Lucy Duran, Lassana Diabate, and Heather Maxwell, "Music, Mali, and Citizen Diplomacy" (lecture, University of Maryland, School of Public Policy, February 20, 2014).

grievances, 3) to commemorate heroes or events, and 4) and to forge identities. Interestingly, each of the four uses for music in violent extremism can be correlated with at least one of the four psychosocial theories of intergroup relationships set forth by Dr. Moghaddam.

Forging identities—According to Dr. Lemieux’s research, “musical preferences can serve as markers of an individual’s social identities, fulfilling a fundamental need to belong to a group while simultaneously having a core aspect of his or her personal identity differentiate this individual from other group members.”⁸⁰ In other words, behavioral relationships between groups or individuals and the music they create or listen to plays a significant role in how those groups or individuals identify themselves. Ethnomusicology research supports the ideas of distinct musical grouping, in that ethnomusicologists have long disparaged the notion of music as a “universal language.” Instead, research has shown that distinct musical communities exist just as there exist speech communities, and often musical “dialects” between groups are mutually unintelligible.⁸¹ This anthropological musical divergence combined with Lemieux’s notion of musical social identity theory, indicates that music’s ability to forge identities is powerful and ties directly to the psychological identity theory of multicultural or intergroup relationship.

Airing grievances—Additionally, Dr. Lemieux proposes that music is a powerful mechanism within a group for airing grievances through the use of words and images that inform the group to the problems they face and that promote a sense of shared struggle.⁸² Examples of the use of music to air grievances are evident in jihadi-themed music as well as the music of white

⁸⁰ Lemieux and Nill, “The Role and Impact of Music in Promoting (and Countering) Violent Extremism,” 145.

⁸¹ Merriam, *The Anthropology Of Music*, 10.

⁸² Anthony Lemieux, “The Music of Terrorism,” *Psychology Today*, 1, accessed October 1, 2013, <http://www.psychologytoday.com/blog/dangerous-minds/201206/the-music-terrorism>.

supremacists.⁸³ In both instances, these examples draw upon the psychological themes of subjective justice as they relate the one group's struggle against perceived injustices at the hands of another group. He provides an outstanding example in the compositions of Bilal Ben Aboud, whose lyrics focus on themes of deprivation, both egoistic and fraternalistic, such as having no job despite being educated and abusive treatment by authorities at a border checkpoint.⁸⁴ Through analysis of the degree to which a population's music addresses the grievances of the group, researchers can hope to better identify the subjective injustices that the groups perceive and predict the extent to which that group might act upon those perceived injustices. The research of mid-20th century ethnomusicologist Hugh Tracy supports Lemieux's claim. In his 1954 book *The Social Role of African Music*, Tracy notes in regard to the African Chopi that "You can say publicly in songs what you cannot say privately to a man's face, and so this is one of the ways African society takes to maintain a spiritual healthy community."⁸⁵ Knowledge of this cultural facet can assist critical security studies analysts in assessing underlying potential for radicalization or violent extremism within a population.

Commemorating heroes and events—Lemieux cites several examples of the use of music as a narrative to commemorate significant events or people of an organization's history. White supremacists, for example, conduct annual live performances of music celebrating the members of the Order, an Aryan terrorist group, and mourning the murder of its founder by federal authorities.⁸⁶ In Mali, following the military coup of 2012, several Bamako rappers formed an activist group called Les Sofas de la Republique in honor of the historic Berber sofa warriors. The use of music in this manner to identify and promote

⁸³ Lemieux and Nill, "The Role and Impact of Music in Promoting (and Countering) Violent Extremism," 146.

⁸⁴ Ibid.

⁸⁵ Hugh Tracy, "The Social Role of African Music," *African Affairs*, no. 53 (1954): 237.

⁸⁶ Lemieux and Nill, "The Role and Impact of Music in Promoting (and Countering) Violent Extremism," 145.

organizational heritage assists in building unit cohesion and therefore has implications on the psychological theories of social identity and subjective justice in intergroup relations.

Label and dehumanize enemies—Just as music can be used to express ideas that might otherwise be impossible to express publicly or face-to-face, so it can also be used to express socially unacceptable ideas such as the dehumanizing or de-legitimization of out-groups. According to Lemieux, this dehumanizing power of music can foster harsh, negative, and de-legitimizing images that can label out-groups in negative terms. Even if the music does not specifically call for or advocate for action against an enemy or out-group, the negative labels presented can be used by the listeners to validate or justify taking actions against a particular enemy.⁸⁷ Further, this notion of music as a tool to dehumanize an out-group relates directly to the intergroup social theories of *irrationality* and *identity theory* outlined earlier in this discussion. The messaging of a group through music that their enemies are less than human (identity theory), combined with messaging that violence toward that group is therefore justified (irrationality), presents a volatile and powerful messaging tool that violent extremists are all too eager to employ toward achieving their objectives.

Having established the relationship between the psychology of intergroup relationships and the psychological role of music on individuals and groups, the regional security analyst must then consider how the knowledge gained from this relationship can be practically applied to countering violent extremism and engaging vulnerable communities within the larger population. By understanding the psychological theories of intergroup dynamics (irrationality, materialism, social identity, and subjective justice) and how they can be related to the psychological functions of music in extremism (airing grievances, forging identities, commemorating heroes, and dehumanizing enemies), critical security studies academics can hope to better understand why humans resort to violent

⁸⁷ Lemieux, "The Music of Terrorism," 145.

extremism and how best to combat, or even better, prevent this extremism. As ethnomusicologist study music to understand cultures, and critical security studies researchers study cultures to understand extremism, the two fields can inform each other through interdisciplinary collaboration.

E. COMMUNICATION THEORY AND NETWORK CONVERGENCE IN SAHEL

Finally, having considered principles of ethnomusicology and the psychology of music, it is essential to understand the principles of network convergence and communication theory and how they uniquely apply to the African Sahel. In “Communications for Isolated and Marginalized Groups Blending the Old and the New,” Silvia Balit proposes that “communication and culture are closely interwoven. Communication is a product of culture and culture determines the code, structure, meaning and context of the communication that takes place.”⁸⁸ In the Sahel, because the cultural histories are thousands of years old, effective communication depends largely upon consideration for the cultures present within the communities. Whereas a Western communicator is familiar with modern technology for communication, it cannot be assumed that impoverished regions of Africa can rely on similar technologies, or that when available they will be used in the same manner as they are used in the West.⁸⁹

Everett Rogers, the creator of the diffusion of innovations theory defined communication as “the process in which participants create and share information with one another to reach a mutual understanding.”⁹⁰ Systems of communication include interpersonal communication (direct communication between people), telecommunication (communication at a distance by electronic

⁸⁸ Sylvia Balit, “Communication for Isolated and Marginalized Groups Blending the Old and the New,” FAO, July 2004, <http://www.fao.org/3/a-a1476e/>, 109.

⁸⁹ Christopher Kerr et al., “Communications Channels in the Sahel Using Mauritania, Mali, Niger, and Chad as a Case Study,” (case study, University of Nebraska-Lincoln: Global Innovation and Strategy Center, May 2007), 8.

⁹⁰ Kerr et al., “Communications Channels in the Sahel Using Mauritania, Mali, Niger, and Chad as a Case Study,” 59.

methods), and mass communication (communication to a large audience via mass media).⁹¹ According to a 2007 report conducted by the University of Nebraska's Global Innovation and Strategy Center, titled *Communications Channels in the Sahel Using Mauritania, Mali, Niger, and Chad as a Case Study*, Africa is still the poorest continent in the world, but due to expanded information communications technologies, Africans have an increased awareness of their situation, which can foster disenchantment, despair, and resentment.⁹² Further, the report acknowledges that stability in the Sahel is currently threatened by factors including, but not limited to, remoteness, porous borders, proximity to known terrorist groups, significant marginalized or disenfranchised populations, and exclusion from political processes. These assessments provide further evidence of the complex intergroup psychological factors at play in the region: subjective justice, materialism, and identity.

1. Two-Step Flow Model and Diffusion Innovations Theory

Communications flow theories developed in the 1940s turn out to be surprisingly applicable models for both understanding communication flow in the modern digital social networking environment and analyzing the centuries-old nomadic communication systems of the Sahel. Perhaps they can provide a framework, then, for the unique situation developing in the Sahel, whereby increased penetration of digital communication technology is integrating with established cultural communication norms and a geographic environment that will remain hostile to the proliferation of digital technology for at least the foreseeable future.

Early communication theorists considered mass-media communication flow to be a simple one-step process, known as the one-step flow model, in which the message was sent via mass-media sources and was wholly received by individuals upon first exposure to the media source. This is also referred to

⁹¹ Ibid., 6.

⁹² Ibid.

as the hypodermic needle or magic gun theory, whereby the message is being “injected” directly to a passive audience. Examples of this communication method include propaganda efforts employed by the Nazis or even Orson Welles’ “War of the Worlds” broadcast.⁹³ Quickly superseded by the two-step model in the 1940s, the magic gun theory is finding renewed applicability in social networking, where media outlets are able to use algorithms based on big data to target specific audiences directly through social media, achieving results similar to the one-step flow model.⁹⁴

Research in the 1940s showed that communication flowed more effectively and more often through a two-step flow model in which certain participants are opinion leaders who interpret media and put it into relevant context for the community. In the two-step model then, most participants are not directly influenced through mass media, but instead are influenced by opinion leaders with whom they engage.⁹⁵ Figure 4 shows the two-step flow theory modeled through Twitter. Here, “opinion leaders” are able to leverage high numbers of connections or followers to amplify a desired message to a broader audience than could be reached through mass media alone. In a region like the Sahel where mass media efforts are constrained by geographic, technological, and cultural dynamics, this concept of opinion leaders both in social media and in traditional communication networks becomes critical to understanding regional communication paradigms.

⁹³ “Magic Bullet or Hypodermic Needle Theory of Communication,” *Communication Theory*, accessed September 24, 2016, <http://communicationtheory.org/magic-bullet-or-hypodermic-needle-theory-of-communication/>.

⁹⁴ M. Hilbert et al., “One Step, Two Step, Network Step? Complementary Perspectives on Communication Flows in Twittered Citizen Protests,” *Social Science Computer Review*, April 12, 2016, 2, doi:10.1177/0894439316639561.

⁹⁵ Kerr et al., “Communications Channels in the Sahel Using Mauritania, Mali, Niger, and Chad as a Case Study,” 57.

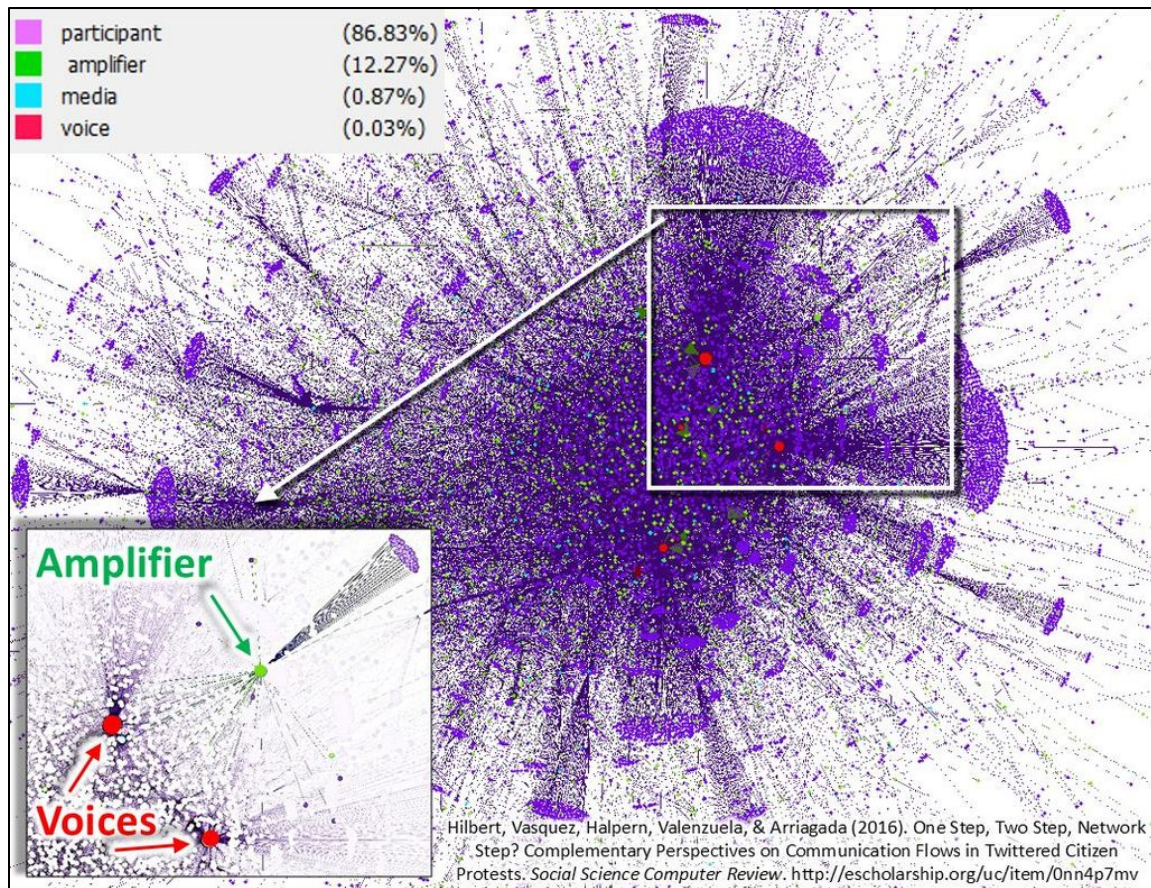


Figure 4. Two-Step Flow Model⁹⁶

The diffusion of innovation theory was popularized by Everett Rogers in the 1960s and borrows from traditional diffusion theory to build on the abovementioned communication models and proposes that diffusion is “the process by which an innovation is communicated through certain channels over time among the participants in a social system.”⁹⁷ According to Rogers, diffusion includes four key elements: innovation, communication channels, time, and social systems, as outlined in Table 1.⁹⁸ For the purpose of this research, new ideas or messages presented through music represent the innovations up for

⁹⁶ Source: Martin Hilbert et al., “One Step, Two Step, Network Step? Complementary Perspectives on Communication Flows in Twittered Citizen Protests,” *Social Science Computer Review*, April 12, 2016, 12, doi:10.1177/0894439316639561.

⁹⁷ Everett M. Rogers, *Diffusion of Innovations*, 5th Edition (Simon and Schuster, 2003), 11.

⁹⁸ Ibid.

consideration. By using diffusion of innovation theory as a framework for analyzing music innovation in the Sahel, researchers can hope to achieve two objectives. First by analyzing the diffusion of ideas and messaging through music as a “communication channel” and foundation of the “social system,” researchers can assess courses of action for effectively delivering messages to hard-to-reach populations in the Sahel. Second, by conducting a technical analysis of the diffusion of musical style innovations through an ethnomusicology lens, researchers can identify relationships within the social system that might not otherwise be evident. There will be more on this in the Chapter IV.

Table 1. Diffusion of Innovation Elements⁹⁹

Element	Definition
Innovation	Innovations are a broad category, relative to the current knowledge of the analyzed unit. Any idea, practice, or object that is perceived as new by an individual or other unit of adoption could be considered an innovation available for study.
Communication channels	Diffusion, by definition, takes place among people or organizations. Communication channels allow the transfer of information from one unit to the other. Communication patterns or capabilities must be established between parties as a minimum for diffusion to occur.
Time	The passage of time is necessary for innovations to be adopted; they are rarely adopted instantaneously.
Social system	The social system is the combination of external influences (mass media, organizational or governmental mandates) and internal influences (strong and weak social relationships, distance from opinion leaders). There are many roles in a social system, and their combination represents the total influences on a potential adopter.

2. Network Convergence in the Sahel

The harsh environment of the Sahara and nomadic heritage of its inhabitants present a sense of geography or place in the Sahel that does not exist anywhere else in the world. Because survival in the Sahel mandated a

⁹⁹ Adapted from “Diffusion of Innovations,” *Wikipedia, the Free Encyclopedia*, September 17, 2016, https://en.wikipedia.org/w/index.php?title=Diffusion_of_innovations&oldid=739892667.

dependence on a complex set of regional and trans-Saharan trade networks dating back centuries, geographic communities in the Sahel can be deceptive. In many instances what appear to be tight-knit localities, or villages, are in fact merely a convergence of several networks into a shared geographic node. Analogously, Horden and Purcell, in their work on the Mediterranean, refer to nodes of density in overlapping networks versus cities.¹⁰⁰ Therefore, it is not unusual that the inhabitants of villages or nodes of density in the Sahel may have a stronger connectivity to other external nodes of their network, but at the same time rely on internal local relationships for logistical support and even survival.

Judith Scheele unravels this dichotomy between containment and connectivity in the Sahel in her 2012, *Smugglers and Saints of the Sahara: Regional Connectivity in the 20th Century*. She notes that “intellectual and moral connectivity, and related problems of containment, are hence as crucial to the making of Saharan human ecologies as irrigation practices and regional patterns of exchange.”¹⁰¹ This sense of moral connectivity versus containment becomes key, as Scheele sites a constant struggle between the *badiya*, or wilderness, and the *qariya*, or village or settlement, and creates an emphasis on the moral connectivity within villages expressed in terms of tribal excellence or Islamic observance.¹⁰² Additionally, this network convergence includes licit as well as illicit networks and involves a complex interaction between regional and trans-Saharan networks. Trans-Saharan trade relies on this regional infrastructure, and in all but exceptional cases such as international cocaine smuggling, for instance, any neat division between trans-Saharan and Saharan networks is misleading.

Therefore, in the Sahel we find a unique infrastructure of networks converging at nodes of density-like villages, trading, posts or oases, where internal connectivity may not be as strong as external connectivity, but that may

¹⁰⁰ Judith Scheele, *Smugglers and Saints of the Sahara: Regional Connectivity in the Twentieth Century* (Cambridge, MA: Cambridge University Press, 2012), 17.

¹⁰¹ Ibid., 18.

¹⁰² Ibid., 17.

have established norms for moral containment that may differ considerably from neighboring villages or nodes. Scheele's assessment that these nodes or oases "appear as sites of investment and production, but also, and perhaps first and foremost, as storage and transshipment points, where goods were repackaged or resold, money changed hands, and one set of camels, guides, and necessary sociopolitical knowledge was replaced with another" remains relevant to today's regional network connectivity. One cannot expect to successfully apply the communication flow theories outlined previously without a thorough understanding of the "sociopolitical" turnover resident at each node of regional networks in the Sahel.

3. Cell Phones in the Sahel—Radio Con-Con 2.0

The rapid proliferation of cell phones into the Sahel over the last decade presents opportunities for regional security analysts and violent extremists alike. Failing to recognize, however, that cell phones in the Sahel are not being used the way they are in London or New York, could prove a fatal flaw in efforts to leverage the technology to promote stability or counter extremist messaging. As discussed earlier, communication channels and social system are key elements of a diffusion flow model. In the Sahel, existing centuries-old communication channels combined with traditional communications paradigms within the social system present a landscape for the use of cell phone technology that might surprise the average Western observer. Let us consider these communication channels and social implications.

Although modern communication systems are few and concentrated within urban areas in the Sahel, communication flow is widespread due to the flow of information from urban to rural areas and among villages via the connectivity of regional networks discussed earlier. The Malians refer to this peer-to-peer flow along lines of transportation "radio con-con" and their word-of-mouth communication method is much more reliable than the Western game of

“telephone,” due to the traditional nature of the custom.¹⁰³ This radio con-con system developed out of necessity and in the absence of big media technologies such as radio or television. Now this entrenched system shapes the way technology is employed in the region, and any attempt to communicate in the region without leveraging traditional systems such as radio con-con will be limited at best.

According to the aforementioned 2007 University of Nebraska report, *Communications Channels in the Sahel*, almost 900,000 cell phones were in use in Mali in 2007.¹⁰⁴ As shown in Table 2, that number increased to 14.6M in 2012, representing a jump from 7% to 88% of all Malians owning a cell phone.¹⁰⁵

Table 2. Mobile Phone Usage in Mali¹⁰⁶

Year	Population	Fixed Line Phones	Mobile Phones	Percentage of Population with Mobiles
2007	11.7M	75,000	869,600	7%
2012	16.5M	112,000	14.6M	88%

Based on these numbers, one might assume that communications technology in the Sahel has caught up to the West, and that the majority of Malians have access to the internet, but this is not the case. According to a report released by the Pew Research Center in 2015, the majority of mobile phone users in the seven sub-Saharan nations studied are using their devices for text messaging and taking photos and videos, and very few are using them to

¹⁰³ Kerr et al., “Communications Channels in the Sahel Using Mauritania, Mali, Niger, and Chad as a Case Study,” 9.

¹⁰⁴ Kerr et al., “Communications Channels in the Sahel Using Mauritania, Mali, Niger, and Chad as a Case Study,” 27.

¹⁰⁵ “CIA World Factbook: Mali.”

¹⁰⁶ Adapted from “CIA World Factbook: Mali,” Central Intelligence Agency, n.d., accessed January 13, 2014, <https://www.cia.gov/library/publications/the-world-factbook/geos/ml.html>.

access mobile internet or social media.¹⁰⁷ It is likely that this trend is more drastic in Saharan regions. In some instances, these mobile devices are being used to enhance or amplify the Malian radio con-con system by literally serving as peer-to-peer sharing devices using Bluetooth technology between cell phones. According to ethnomusicologist Christopher Kirkley, the traditional and previously ubiquitous mixtape market is being replaced by lo-fi recordings made with cell phones in dusty rooms from Bamako to Gao, and are then being exchanged between friends and musicians across Mali and in some cases across West Africa.

Little by little people are getting more internet access, but at the time music was traveling around literally by peer-to-peer transfers: Someone would have a song on their phone, take it to another phone, send it. That person would travel on a bus to another town and send it to their friends there. I've dropped off music in Niger and found that same song in Mauritania. It had made its way 1000 kilometers.¹⁰⁸

Here we see that while cell phone ownership is surging in Africa, access to the internet is not necessarily keeping pace. Due to lack of infrastructure and the high cost of accessing broadband, Sahelians are not, as one might assume, using their mobile phones to access the internet. Instead, they are using them primarily for text messaging and video, photo, and music recording and sharing. According to the same Pew Research study, 80% of Africans use their phones for text messaging and 53% use them for taking photo or video. All other uses polled below 30% median across those interviewed. Additionally, the study found that, unlike the West, only 15% of Africans owned smartphones compared to 64% in the United States.¹⁰⁹ This reliance on mobile phones not connected to the internet to relay information and media across networks in the Sahel presents

¹⁰⁷ Jacob Poushter and Russ Oates, "Cell Phones in Africa: Communication Lifeline," Pew Research Center, April 15, 2015, 2.

¹⁰⁸ "'Purple Rain' Falls on the Sahara in African Adaptation," *Rolling Stone*, accessed September 20, 2016, <http://www.rollingstone.com/movies/features/purple-rain-falls-on-the-sahara-in-brilliant-african-adaptation-20150508>.

¹⁰⁹ Poushter and Oates, "Cell Phones in Africa," 2.

a unique opportunity for researchers and analysts, but the window of opportunity for analysis may not remain open for very long, as access to broadband eventually permeates the region.

Once the data isn't transferred anymore, then it does disappear, due to size constraints on cellphones and the fact that it's not being archived, in particular with the rebellion, I think that the really important story of what's been happening in northern Mali does exist on cellphone medium. And we'll see what happens.

—Christopher Kirkley¹¹⁰

¹¹⁰ Rachel Rohr, "Mali Music Culture Defined by the Cellphone," *Hereandnow*, February 25, 2013, <http://hereandnow.legacy.wbur.org/2013/02/25/mali-cellphone-music>.

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IV. SYNTHESIS—MERGING CONCEPTS

The preceding pages covered several frameworks borrowed from a disparate range of disciplines: a theoretical research model for ethnomusicology, the psychology of intergroup relationships, the psychology of music and violent extremism, diffusion of innovations theory, two-step theory, and network convergence theory. Ethnomusicology has been proposed as a useful but underleveraged tool available to regional security analysts that can provide insight into general cultural norms of a region while also providing specific insight into extremist messaging within the region. Alan Merriam's framework for ethnomusicology research outlined the cyclical relationship between the concepts, behavior, and music in a musical community. Additionally, he identified technical, academic, and behavioral responsibilities of the ethnomusicologist.

The multidisciplinary approach proposed below borrows Alan P. Merriam's "responsibilities" for ethnomusicology as a framework for engaging violent extremism through music. According to Merriam, the ethnomusicologist maintains three responsibilities in the approach to his studies: a technical responsibility to understand the components of sound and music, an academic responsibility to inform other forms of academic research, and finally a social or behavioral responsibility to understand the role of music in cultural or social behavior.¹¹¹ Adapting a similar framework of responsibilities, this research proposes three ways in which researchers can leverage ethnomusicology to understand a population at risk: targeting/tracking (technical), achieving understanding relevant to other disciplines or a designated culture (academic), and cultural engagement through music (social). Said another way, ethnomusicology can serve as a map, a lens, or a bridge, respectively as represented in Figure 5. While these responsibilities or functions overlap and inform one another, they can also be arranged in order across the spectrum of

¹¹¹ Merriam, *The Anthropology of Music*, 14–15.

engaging extremism from directly targeting/tracking bad actors and illicit networks (technical) on the one extreme to informed engagement and citizen diplomacy (social/behavioral) on the other.

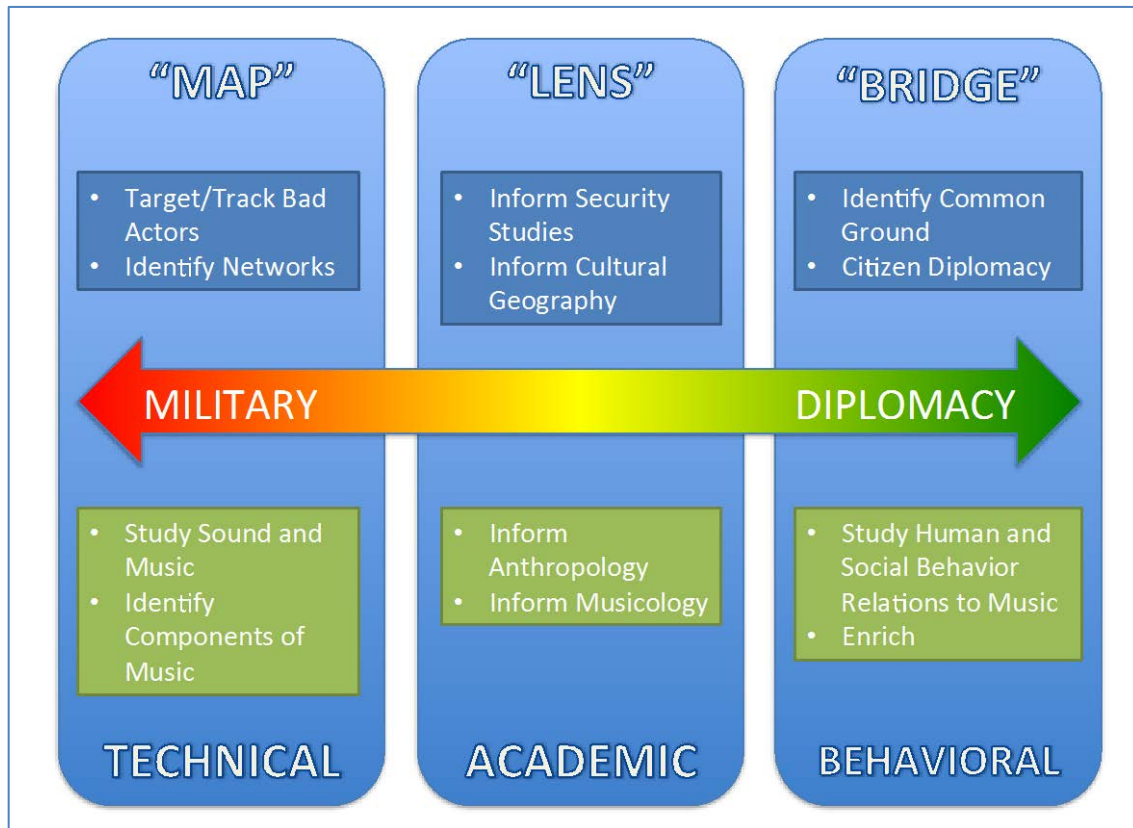


Figure 5. Interdisciplinary Approach Model

Figure 5 represents a visual depiction of the proposed framework aligning the three ethnomusicological “responsibilities” or lines of effort for countering violent extremism along a spectrum from targeting bad actors on one end to community engagement on the other. First, I propose that knowledge on how extremists use music and social media to influence the psychology of the group as well as the ability to track specific digital instances of music or art can be technically applied to identify and “map” networks of bad actors and then find, fix, and target those bad actors. Second, knowledge of a society’s musical history and culture can be used as a “lens” to decipher complex intergroup relations

within a population, and thus can be applied academically to inform other fields of study on that population or help better understand the cultural geography of the population. Finally, and most importantly, an in-depth understanding of the musical landscape of a society can help identify common ground or “bridge,” by which a community can be engaged by citizens and governments to promote stability and reduce risk of radicalization.

The following sections will consider each of these responsibilities separately, beginning with targeting and tracking bad actors through musical network analysis, then objective ethnomusicological analysis, and finally opportunities for cultural engagement and citizen diplomacy through music. Although engagement is covered last, this research suggests that engagement through music is one of the most effective and underleveraged tools available to policy makers, researchers, diplomats, and security analysts. Regardless of objectives or desired approach, this research recommends that those intending to employ this framework for analysis should begin at the center of the spectrum to gain full understanding of the musical community of a region through ethnomusicological analysis, before then attempting to move left or right on the spectrum in order to target or engage regional actors.

A. FOLLOW THE MUSIC: USING DIGITAL MUSIC TO TRACK AND TARGET BAD ACTORS AND NETWORKS

What role, if any, does music play in promoting violent extremism in northern Africa? If it does play a role, how can we then categorize music in order to model how music physically spreads through a population? The ability to categorize the massive amounts of digital media coming out of northern Africa is crucial to measuring the degree to which modern African youth culture might be susceptible to the spread of extremist ideas via music and digital imagery. By building and applying a matrix system to categorize digital samples, I hope to determine 1) whether the vast music culture of northern Africa is in fact being used to spread extremist ideas, 2) how extremists are using the modern networks for music and media exchange, and 3) how best to exploit those

networks to either track and target extremists or counter extremism through positive messaging and engagement.

The ideas presented within this section are conceptual in nature and intended to provide rudimentary models for further analysis. It is beyond the scope and technology available to this research to conduct a comprehensive analysis based on the models outlined herein. Overall, three models are presented that follow-on researchers might consider as starting points for collecting and analyzing data on a musical community or digital music network. For the purpose of this discussion, the medium of analysis will be expanded to include digital visual media that pervades the online musical communities and social media of modern youth culture in Mali. The first model provides a simple matrix that can be used to analyze and label media based on its mass appeal and message. The second model analyzes digital imagery associated with music and youth culture. The third model provides a potential technique for mapping cultural geography and physical networks through music.

1. Binary Matrix Analysis of Media Message Versus Mass Appeal

A matrix method is convenient for this qualitative dataset (music and images) because it provides a quantitative framework with which to separate elements of the data, categorize information by type, compare different types of information, compare similar pieces of information, and identify patterns within the data.¹¹² The research recommends two matrices for music analysis. The first labels media based on two variables: extremity of message versus potential popularity. The second allows for the categorization of a large amount of musical and visual digital art according to pertinent psychological themes in order to identify trends in the messaging.

Being able to rate a song based on the extremism or volatility of its message versus its overall musical quality or likeability allows researchers to

¹¹² Morgan D. Jones, *The Thinker's Toolkit: 14 Powerful Techniques for Problem Solving*, Revised (New York: Crown Business, 1998), 116.

assess how much bearing a song's message, quality, or both will have on its ability to promote a message within a group or outside a group. The matrix in Figure 6 allows for the quick and simple categorization of a song, video, or image into four generic groups.

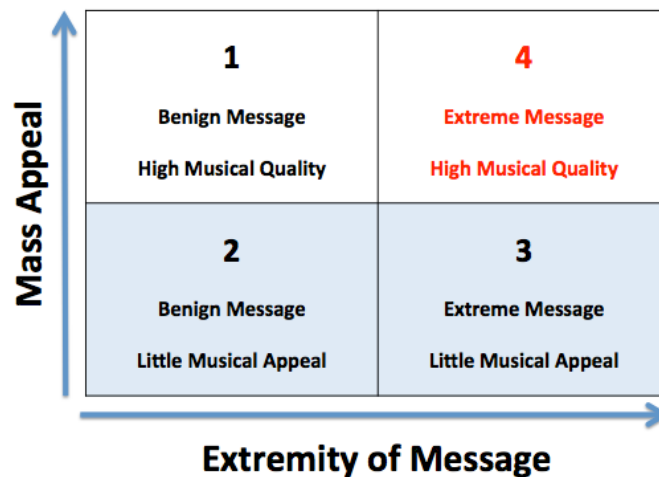


Figure 6. Binary Matrix of Music Analysis

By applying a binary value to its message and its quality, a song (for example) will be categorized as either appealing or not, and its message will be categorized as either positive-neutral or negative. This method is perhaps oversimplified but allows analysts or researchers to objectively group songs or media based on somewhat subjective analysis. For example, a category 1 song would be highly appealing but have no significant messaging, such as Daft Punk's "Get Lucky." Songs in categories 2 and 3 would share a common lack of musical appeal, but would either have an extreme message or not. American-born jihadist, Omar Himmami's "Blow by Blow" is an example of the latter. Finally, category 4 songs would be presumably the most dangerous or powerful, in that they may contain strong messaging combined with high mass appeal. LA rap group N.W.A.'s 1988 hit, "Fuck tha Police" is a powerful example of this. In an attempt to air valid grievances against police brutality and racial profiling of blacks by the LA Police Department, N.W.A. condoned the use of violence

against police in their lyrics. The song garnered FBI attention and significant backlash from law enforcement and others, but its message is arguably as powerful and relevant today as it was almost 30 years ago. “Fuck tha Police” is number 76 on the *Rolling Stone* list of the top 500 songs, ever.¹¹³

The abovementioned matrix model is just one possible way in which music as a source of data can be objectively analyzed to identify patterns or trends. If desired, this categorization could be made more complex by rating songs on a scale of extremism and mass appeal from 0 to 10 and then plotting those points on a x-y axis scale similar to Figure 6. Taken alone, this categorization may not reveal much about the musical trends, but if compared against data showing how extremist media moves through a population, relationships may be revealed between what makes a song particularly effective at spreading ideas. Analysis of the messaging may reveal particular pockets of marginalization or disenfranchisement, and in this way even non-popular songs may be of import to the researcher. The surge in digitally manipulated photo art on Malian social media following the northern rebellion provides a robust database for further analysis of thematic trends in music or art.

2. Psychological Matrix Analysis of Digital Imagery

About the time that things were starting to heat up in northern Mali, Portland archivist and guerilla ethnomusicologist Christopher Kirkley was scouring the Mali desert searching for music to record or transfer for his compilations of “Music from Saharan Cellphones.”¹¹⁴ Along the way he discovered that Malian youth were using software on their computers and cell phones to create unique digital images that could then be shared from device to device or on social media. In many cases, these images were being created to

¹¹³ “500 Greatest Songs of All Time,” *Rolling Stone*, accessed September 15, 2016, <http://www.rollingstone.com/music/lists/the-500-greatest-songs-of-all-time-20110407/n-w-a-fuck-tha-police-20110526>.

¹¹⁴ “Interview: Christopher Kirkley, Sahel Sounds, and Guerrilla Ethnomusicology,” *Ethnomusicology Review*, accessed September 23, 2016, <http://ethnomusicologyreview.ucla.edu/content/interview-christopher-kirkley-sahel-sounds-and-guerilla-ethnomusicology>.

support local musicians who used the art for album covers or promotional media. Kirkley noted at the time that some of these images are an homage to American graphic artists Pen & Pixel, famous for their gaudy digital album covers for the American “Dirty South” rap movement in the late 1990s.¹¹⁵

Figure 7 shows a Facebook cover image created by Prinsco Fatal Bass, a Malian digital artist. Figure 8 is an album cover created by Prinsco Fatal Bass for Gao rapper Pheno S. Note that for the album cover, Prinsco Fatal Bass recycles many of the same images from his Facebook image. Compare these to the Pen & Pixel album cover art for American rappers Wiz Khalifa and Ty Dolla \$ign in Figure 9. Based on the similarities in artistic style, one would not be wrong to conclude that Western culture and style is likely influencing the digital media in Mali, but what about the themes involved. The Pen & Pixel image is indicative of common American hip-hop themes: wealth, drug use, objectification of women, etc. Then what are we to make of the extreme imagery in Prinsco Fatal Bass’ artwork: the 9/11 attacks, the Eiffel Tower being destroyed, attack helicopters, buildings on fire? What is happening here? Are these the messaging attempts of a radicalized extremist, or the cutting-edge art of urban youth recycling the extreme imagery they are seeing coming out of the West? What if there was a way that researchers could analyze this imagery to identify common themes? Fortunately, Kirkley collected hundreds of these images from across Malian social media and curated them in to a digital art expo that was presented in galleries around the world and on the website sahel-digital-art.com. The availability of such a robust database of Malian digital imagery from 2012 to 2013 provided a unique research opportunity for this thesis.

¹¹⁵ Sahelsounds, “Sahel Vinyl,” *Sahelsounds*, July 22, 2013, http://sahelsounds.com/2013/07/sahel_vinyl/.



Figure 7. Prinsco Fatal Bass Facebook Image¹¹⁶

¹¹⁶ Source: Sahelsounds, "Sahel Vinyl."



Figure 8. Pheno S. "Kani" Album Cover¹¹⁷

¹¹⁷ Source: Pheno S., "Kani," *Sahelsounds*, accessed September 23, 2016, <http://sahelsounds.bandcamp.com/album/kani>.

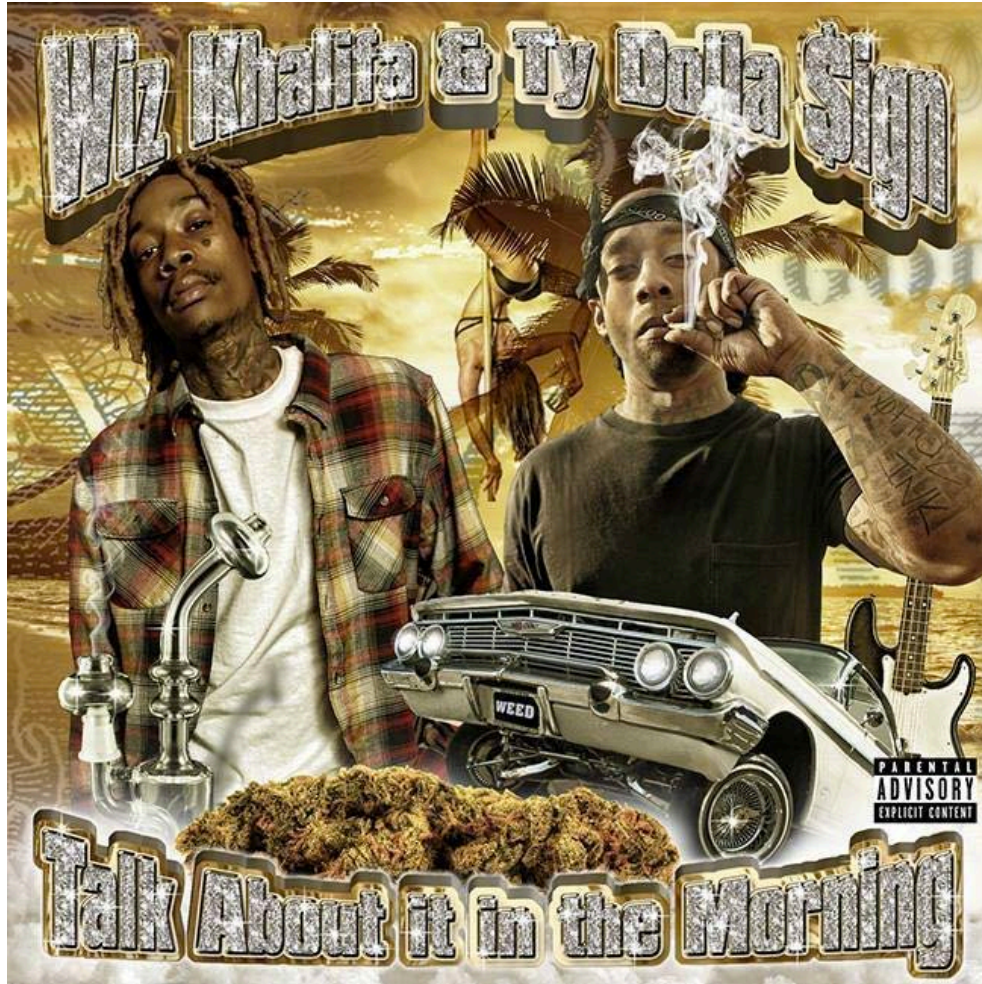


Figure 9. Wiz Khalifa and Ty Dolla \$ign “Talk About It in the Morning”
Album Cover¹¹⁸

In an attempt to identify notable patterns or messages within the digital imagery, a psychological or thematic matrix was built per the example in Figure 9. Using potential themes along the x-axis, to include the psychological roles of music discussed earlier, 150 images were analyzed. As is the case with any scientific inquiry, a review of facts and assumptions is warranted. First, while I have conducted research for this thesis, I am not an expert on Malian urban culture and do not understand French, Tamashek, or Bambara. Therefore, it is quite likely that many of the themes that I have perceived in images may not in

¹¹⁸ Source: “CD Covers,” Pen & Pixel, accessed September 23, 2016, <http://penandpixel.com/cd-covers/>.

fact be the intended messaging of the images' creators. Thus, it is important to understand that this matrix is not intended to accurately measure messages or themes being "transmitted" by a particular image or song, but rather to measure the message being "received" by the observer of the media. In this respect, the objective thematic analysis of digital media can be used to identify cultural interpretation differences between two communities. In theory, by using the thematic matrix to sample large enough groups from two different cultural communities, a researcher could identify potential divergences in artistic interpretation between the two groups, not unlike Robert Morey's experiment discussed in the ethnomusicology literature review. Follow-on research, for example, might compare my results with the results from a group of Bamako urban youth and a group of rural Tuaregs. Utilized this way, the matrix becomes a tool to find, fix, and target ethnocentrism, which, per Alan P. Merriam, "must be attacked wherever it is found."¹¹⁹

In order to conceptually validate the thematic matrix's utility, the images were tagged as either "Tuareg" or "Black African" and then those two groups were used for the comparative analysis depicted in Figure 10 and Table 3. The research assumes that this categorization for most of the images was accurate. There is no way to confirm the actual sources for any of the pictures, so for the purpose of this analysis, general categorizations were made that will include a margin of error. The results assume that the sample size is large enough to account for at least a few errors, since the objective is to identify relative trends between the two groups and not to make absolute conclusions regarding either. A complete portfolio of the images and the matrix analysis is contained in the Appendix and can be utilized for further analysis as necessary. In short, the following analytical results should be approached with great caution, and rather than conclusions, they should be considered jumping-off points for further analysis or deeper dives based on the trends identified.

¹¹⁹ Merriam, *The Anthropology of Music*, 8.



Image 1



Image 2



Image 3

IMAGERY DATA COLLECTION											
Image	Military/ War	Nationalism/ Independence	Islamism	Religion	Western Culture	Pop Culture	Romance	Wealth	Feminine	Masculine	Self Promotion
1		X					X		X		
2					X	X		X		X	X
3	X	X			X			X		X	X
TOTAL	1	2	0	0	2	1	1	2	1	2	2

Figure 10. Digital Art Matrix Analysis¹²⁰

The resulting analysis reveals three notable trends in the data. First, forging identity appears to be the most common psychological theme across the data sample. As seen in Table 3, the distribution of images that forge identity between Tuaregs and black Africans roughly matches the overall distribution of Tuareg versus black African images across the dataset. Interestingly though, the data shows that the Tuareg images that “forge identity” are oriented towards their group and Azawad as a whole, whereas the black African images that forge identity are more individual in nature. This trend is seen in Table 4, where there is an observable divergence between the Tuareg subgroup and the black African subgroup in the themes of “self-aggrandizing,” “wealth,” and Western culture.” In these cases, the images from southern Malian urban youth appear to be forging individual identity as part of a hip-hop or urban culture, whereas the Tuareg images forge identity with respect to the new Azawad national identity as indicated by the data columns for “Independence” and “Azawad” in Table 4.

¹²⁰ Source (images): Sahel Digital Art, sahel-digital-art.org, accessed October 2, 2013.

Table 3. Imagery Data According to Psychological Function

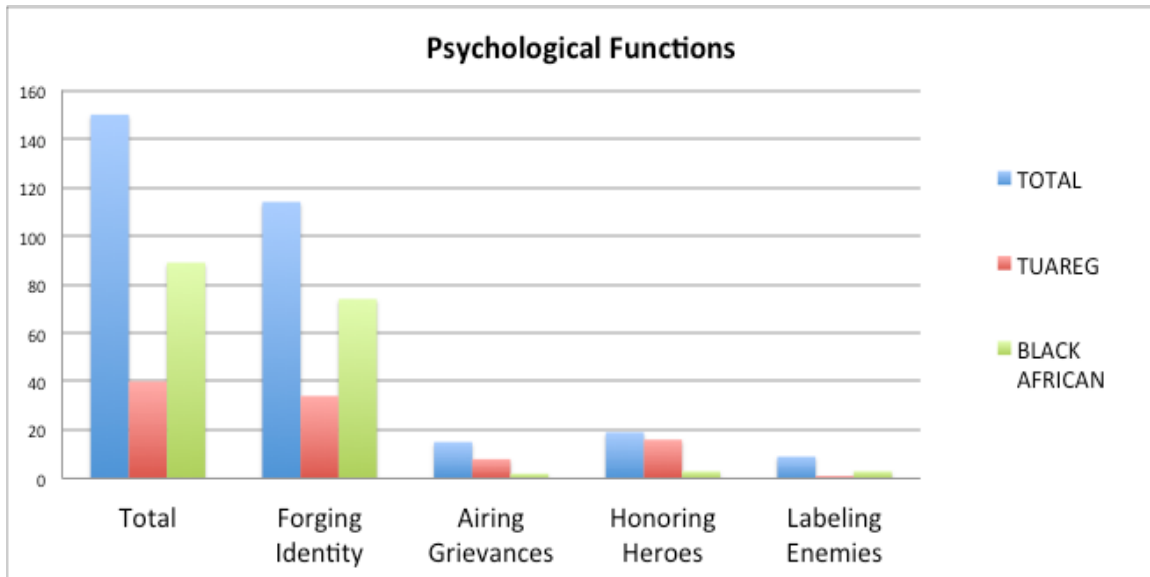
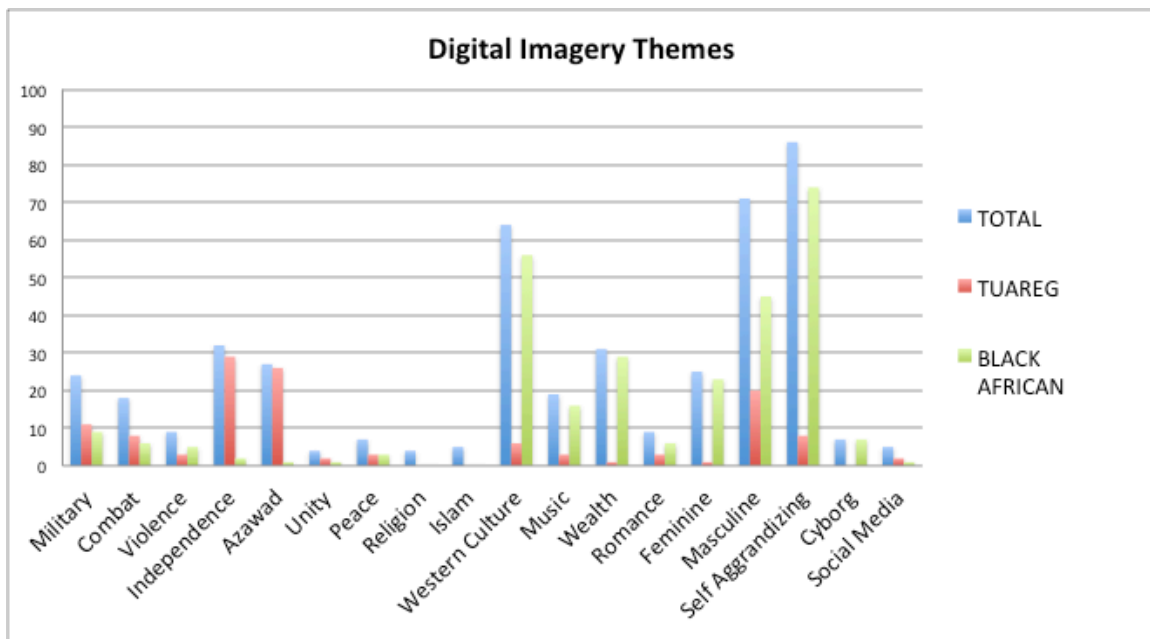


Table 4. Imagery Data According to Themes



Second, Tuareg imagery appears to be significantly less influenced by Western culture or hip-hop. By comparison, the majority of the black African imagery appears to be south Malian urban youth remaking pictures of

themselves or their friends in the image of American hip-hop culture, or in many cases, Photoshopping themselves into photos with American superstars like Nicki Minaj, Lil Wayne, and Justin Bieber. As stated previously, the general subgroup of black African images can be categorized by a desire to present an online image reflecting Western culture or gangster rap themes of wealth, fame, violence, and self-aggrandizement. By contrast, the Tuareg imagery appears to be consumed by the current events of the day and the sense of national unity that has arisen from the recent prospect of an independent Tuareg nation, which may in part explain the third trend.

Finally, the data supports an increased instance of “airing grievances” and “honoring or commemorating heroes” amongst the Tuareg images relative to the black African images as shown in Figure 10. Combine this with the significant percentage of Tuareg images containing themes of “military,” “combat,” and “independence,” and a narrative begins to shape of a marginalized population that may be vulnerable to radicalization and recruitment by violent extremism organizations. On its own, this may not be a significant revelation to anyone familiar with the history of the Tuareg movement in Mali, but at the very least it reinforces previous conclusions and provides an additional perspective or “lens” by which analysts can continue to add nuance to the developing narrative.

In summary, returning again to Dr. Moghaddam’s psychological themes of multiculturalism, the data shows that according to my perception of the imagery at least, the Tuareg community is driven by a strong sense of group identity galvanized around the idea of a free Azawad nation, and that the Tuaregs may continue to suffer a collective sense of subjective injustice after years of disenfranchisement by the Malian central government. Southern Malian urban youth, on the other hand, would appear to be driven by a sense of materialism influenced heavily by cultural norms of the West, particularly American hip-hop culture. Armed with these results, Malian analysts might consider further research in order to validate these findings, and if valid, CVE policy makers would be wise to pursue policies that leverage Western culture and hip-hop to

shape public opinion among urban youth in Bamako while at the same time instituting policies that might compel the central government to address long-standing grievances among its Tuareg communities in the north.

3. Mapping the Digital Music Fingerprint

The third concept for “mapping” music, if technologically feasible, would literally map the music. If one accepts the conclusions set forth in the literature review that 1) there is a robust peer-to-peer network in the Sahel for the transfer of digital music files between phones using Bluetooth technology, and 2) the current absence of ubiquitous internet access in the Sahel means that the distribution of a specific music file would model that peer-to-peer network without being obscured by overarching internet sharing, then it follows that analysts may be able to take advantage of this temporary condition in the Sahel to use digital music or images on cell phones as a “marker dye” for this peer-to-peer network. Further, this ability to map the music network could mark violent extremist networks either directly by mapping the flow of extremist themes in the media, or indirectly by identifying nodes in the music network that, per theories on network convergence in the Sahel, would likely be aligned with nodes in illicit CVE or transnational organizational crime networks. In a sense, the model proposed here would be the digital music analog of putting a GPS beacon into a carton of cigarettes and releasing it on the black market.

While it is outside the scope and resources available for this thesis to conduct an in-depth technical analysis of digital music networks in northern Africa, what follows is a proof of concept that models a musical network, or more accurately, the geographic dimension to music dispersion within the United States. Because the United States presents a data-rich social media environment and robust online musical network, it is feasible to show that musical preferences tied to geography may identify deeper patterns or networks. By using software to observe geo-tagged Twitter feeds containing the word “Bieber” within the United States, the maps displayed in Figures 11 and 12 show the correlation between

geography and music dispersion over time. The images are separated by approximately 40 minutes and show how Tweets about Justin Bieber cluster in major urban areas initially, and then spread out from there. It is possible, that this geographic relationship may have less to do with an affinity for Justin Bieber and more to do with the density of cellular and internet availability in urban centers. The absence of the internet and cellular service in the Sahel would therefore provide a more geographically “pure” dataset.

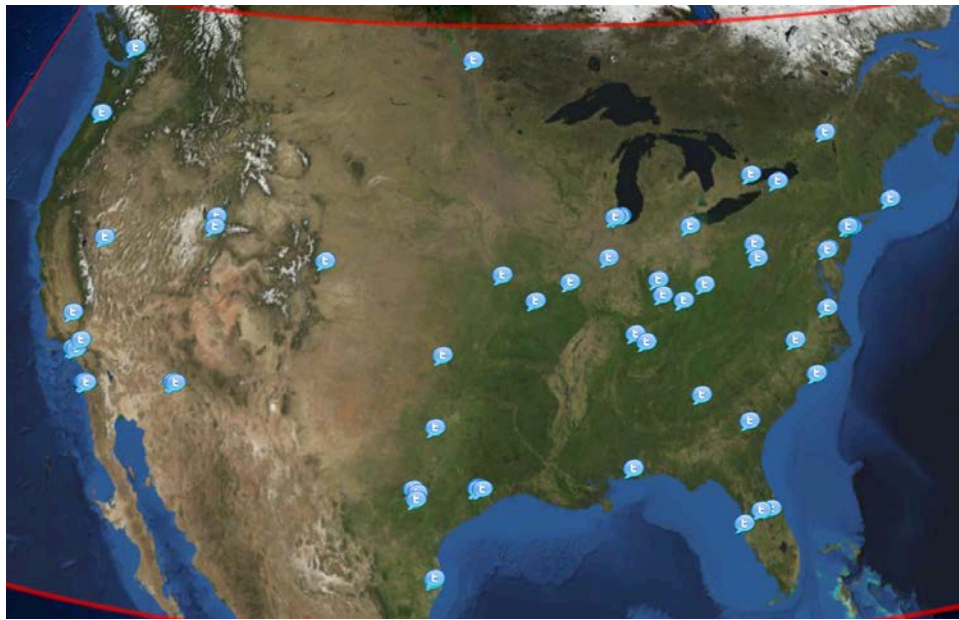


Figure 11. Geotagged “Bieber” Tweets – 1

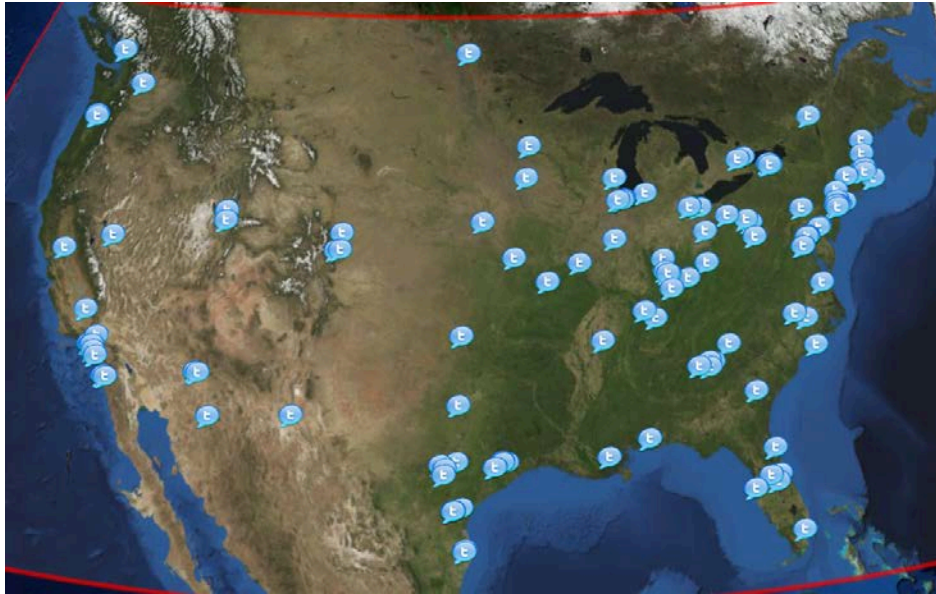


Figure 12. Geotagged “Bieber” Tweets – 2

Unfortunately, the relative absence of wired or cellular access to the internet in the Sahel would render the software in Figures 11 and 12 useless. Therefore, in order to generate similar digital maps for the Sahel, a technology would have to be developed and fielded that can detect and access discrete files on cell phones at the point of transfer with cellular towers, or more ideally at the point of Bluetooth transfer between devices. It is possible that such technology already exists, but this research did not reveal any open-source examples of systems that could be recommended. Naturally, the technology proposed herein would drive potential ethical and legal considerations regarding individual privacy but this research is concerned more with the issue of technological possibility, rather than ethical suitability. It is reasonable then to conclude that, if a technology can be leveraged to inject marked digital files into the Malian digital cell phone exchange, and actively access and track those files on cell phones, the resulting analysis would show discrete peer-to-peer nodes and relationships useful to CVE analysts in the Sahel. Analysts could in fact “map” the digital music networks of the Sahel.

B. KNOW THE MUSIC, KNOW THE PEOPLE: A BRIEF AND INCOMPLETE OVERVIEW OF MALIAN MUSIC AS IT RELATES TO MODERN GEOPOLITICS

By now it should be no surprise that according to this thesis, any analysis of the Sahel region of Africa, specifically Mali, is at best incomplete if it does not incorporate the musicological landscape of the region. Therefore, the research herein would itself not be complete without a brief attempt to provide an overview of the traditional and modern musical genres found in Mali. Naturally, the music landscape within Mali reflects the ethnic diversity of its population. The major musical influence stems from the ancient Mali Empire of the Mandinka. Mande people including the Bambara, Mandinka, and Maninka make up 50% of the present-day Mali population. However, other ethnic groups like the Fula, Tuareg, and Songhay are also present and bring their own cultural and musical influences. In very general terms, and simplified greatly for the purpose of this research, the music of Mali can be divided into five categories: Traditional Mande music, Tuareg music of the northern desert, Fula music, Songhay music, and of course, modern music found in the cities of across Mali. Even more generally, the musical community of Mali is one of juxtapositions or contradictions, much like the nation itself: north versus south, desert versus river delta, old versus new, urban versus rural, secularism versus jihadism.

1. Traditional Music

Perhaps the most notable facet of Malian traditional music culture is the presence of a dedicated “musician” class that enjoys a privileged place in Malian society. The *jeli*, or *griot* in French are the social class of musicians or orators in many West African cultures that are typically sponsored by upper-class patrons or nobility.¹²¹ The *jeli* are responsible for maintaining an oral historic tradition of the Malian Empire and Mali today, to include recounting genealogical information, family events, deeds of ancestors, and encouraging moral behavior

¹²¹ *Wikipedia*, s.v. “Music of Mali,” accessed August 4, 2016, https://en.wikipedia.org/wiki/Music_of_Mali.

to ensure the honor of their patrons' family names. The jeli may also perform dispute mediation, and are often trusted by their patrons with privileged information that may be required for the performance of their griot duties.¹²² Finally, the jeli class is endogamous, meaning that particular surnames such as *Kouyate*, *Kamissoko*, *Sissokho*, *Suomano*, *Diabete* and *Kone*, are reserved for jeli or griots.¹²³ This list presents two points of interest to this research. First, the names should be familiar to any aficionado of Malian or West African music, and second, the list is almost exclusively Mande. There are no Tuareg surnames represented. According to Thomas Hale in "From the Griot of Roots to the Roots of Griot: A New Look at the Origins of a Controversial African Term for Bard":

The Tuareg, who live in the Sahara and on the northern fringe of the Sahel—they are concentrated in northern Mali and Niger as well as in southern Algeria—do not have a separate griot tradition. But their artisans who work in metal, wood, and leather, known as *inadan*, carry out so many of the functions of griots, such as singing songs at weddings and serving as go-betweens, that they cannot be excluded entirely from any discussion of the griot world.¹²⁴

We will discuss Tuareg music further in following chapters, but for now it is important to understand that the concept of the griot that many assume to be fundamental to Malian social structure and musical community does not perhaps apply in the northern Sahel region of Mali, where the ethnicity and musical culture is predominantly Tuareg or Berber. Therefore, any policy approach to engagement with the whole of Mali, and not just the Mande majority represented in the south and by the central Malian government, should be informed by this nuance. For the purpose of this research, "traditional" Malian music will be considered as the traditional Mande music to include its modern manifestations and Tuareg music will be considered separately.

¹²² *Wikipedia*, s.v. "Music of Mali."

¹²³ *Ibid.*

¹²⁴ Thomas Hale, "From the Griot of Roots to the Roots of Griot: A New Look at the Origins of a Controversial African Term for Bard," *Oral Tradition* 12, no. 2 (1997): 267.

The traditional Mande music is characterized by instrumentation specific to the West African music community, and in some instances specific to the regional music community of Mali. The melodic instruments are typically built around a pentatonic, or five note per octave, structure and include the *kora*, a 21–25 string lute harp, the *n’goni*, a 4–7 string lute believed to be the predecessor of the American banjo, and the *balafon*, a slat xylophone with small gourd resonators.¹²⁵ Percussion instruments include the *fileh*, a hand drum fashioned from a calabash gourd, the *gita*, a calabash gourd with beads or kowri shells attached, the *djembe*, a large Congo-style animal skin drum, and the *dunun*, a cylindrical mallet drum with rawhide at both ends.

Much of the music being produced in Mali today is influenced by the traditional Mande style, and the artists making it have gained recognition around the world. Salif Keita, long considered an “ambassador of Malian music” has ancestral roots to Soundjata Keita, the founder of the Malian Empire in 1240, and has been making music since 1969 with the “Griots” and collaborated with Western artist like Carlos Santana. Toumani Diabete and Bassekou Kouyate are famous throughout West Africa and around the world for their mastery of the Kora and Ngoni, respectively, and their ability to incorporate modern and Western musical concepts into their traditional styles. More recent artists like blind husband and wife duo Amadou Bagayoko and Miriam Doumbia, known to the world simply as “Amadou and Miriam,” continue the tradition of exporting Malian music to the world. The duo has been nominated for a Grammy and graced stages across the world from Coachella to Glastonberry music festivals. Amadou and Miriam recorded the official anthem of the 2006 FIFA World Cup and in 2010 shared the stage of the FIFA World Cup opening ceremonies in South Africa with Western mega-stars like Alicia Keys and Shakira, and lesser-known group Tinariwen, a world-famous Tuareg desert blues band also hailing

¹²⁵ *Wikipedia*, “Music of Mali,” 1.

from Mali.¹²⁶ Tinariwen will be discussed further in the following section. These two Malian bands performing together on a world stage represented both the music of the marginalized Berber people of northern Mali as well as the proud heritage of the Mande Empire and modern Mali nationalism; two-sides of a decades-long friction that less than two years later would be leveraged by Islamist extremists to takeover over the whole north of Mali. This nuanced irony was likely lost on the 80,000 fans in the stands and hundreds of millions watching on TVs all over the world.

2. Tuareg Music

Vocal performance is a fundamental element of the Tuareg musical tradition and is characterized by the *terellilit*, a trilled vocal call unique to the region. A type of violin called the *imzhad*, and the *tendi*, an African drum, often accompanies the vocals. Recorded examples of traditional music include wedding songs, hunting songs, and camel songs, perhaps indicating the importance of the animal to the nomadic people.¹²⁷ The musical influences stem from the Berber Empire, which at its height spread from the Atlas Mountains in Morocco to Niger and Algeria in the east. Here we see a useful example of a geographic musical community that is not perfectly aligned to the corresponding geography of the nations within which it operates. This is important, because geographically, this musical community generally represents the region that many marginalized modern Tuaregs would consider to represent Azawad, the name given to an independent Tuareg nation that many thought had been achieved briefly in the initial days following the rebellion of 2012. This musical commonality certainly plays a role in defining intergroup relationships in the Sahel that are in conflict with ideals of post-colonial nationalism in the region.

¹²⁶ *Wikipedia*, s.v., “Amadou and Mariam,” accessed August 11, 2016, https://en.wikipedia.org/wiki/Amadou_%26_Mariam.

¹²⁷ “Tuareg Music of the Southern Sahara—Various Artists—Description,” Smithsonian Folkways, accessed August 11, 2016, <http://www.folkways.si.edu/tuareg-music-of-the-southern-sahara/>, [islamica-world.com/album/smithsonian](http://www.islamica-world.com/album/smithsonian).

One cannot consider the modern Tuareg musical community without including the desert guitar band Tinariwen, whose creation story “burgeons with myth and mythos in their home country and beyond,”¹²⁸ and presents a vignette representative of the entire Tuareg rebellion movement. Per the band’s own website, founding member Ibrahim Ag Alhabib witnessed his father’s death at the age of four and built his own guitar from a bicycle wire, stick, and tin can. It is not uncommon to see the band romantically described across the internet as “nomads of the Sahara desert who ride on horseback with Stratocasters and AK-47’s at their side.”¹²⁹ The band formed in the 1980s in Libyan training and refugee camps, where young Tuareg men were now seeking work after having left their homes in Mali and Niger fleeing drought and lack of opportunity. This diasporic group of disenfranchised young Tuaregs, referred to collectively as “Ishumar,” a Tamashek adaptation of the French word “chomeur,” meaning “unemployed” or “jobless person,” would eventually become the foot soldiers of the Mali rebellions of 1990.¹³⁰ According to the band’s own website:

Disillusioned by the promises of Quaddafi at the time, the Tuareg became restless again and longed for home. But the interaction with city life yielded unexpected consequences, they became exposed to western music—most notably the guitar-driven anthems of Jimi Hendrix and the American blues—which they mixed with their own soulful dirges which they’d perform in the camps by the fire with battery-operated amps. When revolution broke out back in Mali, they left Libya behind, hung up their guitars and picked up guns to fight for the Tuareg independence. When the discord died down, the band returned to music, delivering songs imbued with aching beauty and lonesome poetry. Their music was bootlegged and traded around the region, earning them a devout following.¹³¹

This description of the Tinariwen “creation myth” demonstrates a few concepts key to this research. First, it acknowledges the coming together of

¹²⁸ Tinariwen, “Tinariwen Emmaar,” Musical Band Homepage, accessed August 11, 2016, <http://tinariwen.com/bio-eng/>.

¹²⁹ Ibid.

¹³⁰ Morgan, *Music, Culture and Conflict in Mali*, 47.

¹³¹ Tinariwen, “Tinariwen Emmaar.”

musical communities in way that will eventually enhance the exportability of Tinariwen's music and in turn any messaging that the band might be incorporating in to this music. As discussed in Chapter III, Merriam would likely view this merging of musical styles as a potential softening of the "barriers to communicability" between communities that cross-cultural music diversity often presents. Hence, it represents a pathway for communicability between the West and Tuareg diaspora through music. Second, this passage highlights the often inseparable intermingling between a musician's or band's own history, personal experience, and the collective experiences of the musical community it represents. In this way, whether they intended it or not, Tinariwen bears a political responsibility or at least expectation to leverage their music psychologically to forge identity and air grievances as proposed by Dr. Lemieux in the literature review. Tinariwen's history and music are so intertwined, that it is easy to forgive those who conjure images of the band roaming the Saharan Desert with guitars over one shoulder and rifles over the other, whether exaggerated or not. Finally, the abovementioned passage alludes to the mechanism by which the music of Tinariwen spread regionally via bootlegging and trading, before the band was an international superstar. This is important because it reinforces the ideas discussed in the communication theory section of the literature review. This process of bootlegging live performances in the absence of formal recording studios, and then trading these recordings on tapes across the region highlights the existing informal infrastructure for music exchange and informs researchers on the digital version in use today that essentially leverages the same process and infrastructure.

It is worth noting that in the case of a band like Tinariwen, their music can accomplish the psychological purposes previously outlined by Dr. Limieux in two general ways. The musician or music itself can overtly forge identity, air grievances, commemorate heroes, and dehumanize enemies through the lyrics and associated imagery, but alternatively, even if the music is not overtly political or its creator bent on psychological purposes, it can still be leveraged by a

musical community to reinforce cultural identity or as a beacon of heritage around which a group can rally. Tinariwen's songs are written primarily in French or Tamashek, and absent translation it is difficult to present examples of overt messaging through their lyrics for the purpose of this research. Therefore, the testimony of band member Ag Leche will have to suffice:

The new songs of this album talk about what we feel today, the tuareg issues, the need of being recognized by the administration of our country. But also some poetic ways of describing our feelings. The Tamasheq language is using a lot of metaphors, and it comes from the old traditional Tuareg poetry that tells about the Tuareg tribes, their adventures in the desert, the wars, but also the beauty of the desert, the sky, the lands, and the assouf, our blues, and nostalgia of an old time.¹³²

In his description, Ag Leche confirms the overt intent of the musicians to address current issues affecting their community (airing of grievances) and to honor traditional Tuareg tribes and their adventures and wars (commemorating heroes and historic events). At the same time, his references to the "beauty of the desert, the sky, the lands" and to "our blues" and to the "nostalgia of an old time" hint at the more ephemeral qualities of their music that are powerful instruments in forging the identity of a community or shaping the common narrative of a cultural specific group. In the case of the Tuareg, this identity is one of nomadic independence rooted in the rugged beauty of the desert and the history of their people.

Even a cursory or anecdotal understanding of the Tinariwen backstory provides a dimension of analysis that might not otherwise be available to an analyst trying to achieve a deep understanding of the intergroup dynamics at play in northern Mali in 2012. While this ethnomusical dimension cannot be expected to provide a comprehensive analysis on its own, and while similar insights might likely be ascertained through different avenues of approach, the ethnomusical

¹³² Tinariwen, "Tinariwen Emmaar."

analysis nonetheless provides another tool to the regional security analyst tasked with providing clarity to the all to complex dynamics of regional geopolitics.

3. Fula and Songhai Music

The Fulani or Fula are a pastoral nomadic people that, like the Tuaregs and Mande, can trace their history back centuries and are dispersed across West Africa and several countries. In Mali, the Fulani are primarily centered around the Mopti region along the banks of the Niger River. Like other Malian musical communities, the Fula enjoy a rich musical culture with their own traditional instruments and numerous sub-groups. Traditional instruments include the *hoddu*, a plucked skin-covered lute similar to the *ngoni*, and *riti*, and single-string bowed instrument similar to a violin. Fulani music reflects traditional life and like other African music, is often specific to occasions or activities, such as herding cattle, working in the fields, preparing food, etc. Music in Fulani culture is an integral element of village life, with songs and drums playing a significant role in daily activities like cultivating and harvesting the fields.¹³³

The Malian blues guitarist Ali Farke Toure comes from Fula and Songhai roots and is perhaps the most world famous of Malian musicians. Born in 1939 to a farming family on the banks of the Niger River in the Tombouctou region of Mali, Toure took up the guitar in the mid-1950s and following the Malian independence from France in 1960, became the leader of the Nianfunke village cultural troupe, responsible for preserving local culture.¹³⁴ Merging West African music traditions with the American blues, Farke's music reached a world-wide audience and eventually earned him two Grammy Awards. His musical tradition was famously referred to by American filmmaker Martin Scorsese as the "DNA of blues," hinting at the ethnomusicological overlap of music communities that exists between West African music and American blues.

¹³³ Tinariwen, "Tinariwen Emmaar."

¹³⁴ Jon Pareles and "Ali Farka Touré, Grammy-Winning Musician of West Africa, Dies," *New York Times*, March 8, 2006, <http://www.nytimes.com/2006/03/08/arts/music/ali-farka-toure-grammywinning-musician-of-west-africa-dies.html>.

Toure was not only considered a Malian cultural ambassador to the rest of Africa and to the world, but he was also considered by many an ambassador between the myriad cultural groups within Mali. During the Tuareg rebellions of the 1990s, Ali Farka Toure's singing in all of the region's languages, Songhai, Fulani, and Tamashek, was considered a symbol of peacemaking.¹³⁵

Before his death in 2006, Farka Toure retired from touring and returned to his farming roots in Mali, where he was elected mayor of the Niafunke region and established the Ali Farka Toure Foundation to support young Malian musicians.¹³⁶ His musical tradition and political activism is carried on by his son Vieux Farka Toure, whose music has garnered world-wide recognition on its own. Of note, an enduring collaboration with renowned Israeli pianist Idan Raichel has been described as "a powerful testimonial to the power of art and fraternity to transcend vast cultural and political divides."¹³⁷ Vieux Farka Toure's own feelings on the Toure-Raichel Collective Project demonstrate the unique power of music to bridge cultural, political, and religious barriers, but also the inclusive secularism for which Mali is typically regarded:

People ask me all the time why I am doing this, and I tell them that for me it's not about religion. Your religion is for you, mine is for me, and it's not because I am a Muslim and he is something else that we did something together. I am open to all music coming from everywhere in the world. We should not say, "O.K. I am a Jew, so I will not play with Muslims," or "I am a Muslim, so I will not play with Christians." That's why we have problems in this world.¹³⁸

The worldview expressed by Toure in this quote is one that is not uncommon to musicians or artists seeking to communicate across cultural boundaries, and is at the heart of this researcher's thesis that musical

¹³⁵ "African Star Ali Farka Toure Dies," BBC, March 7, 2006, <http://news.bbc.co.uk/2/hi/africa/4782176.stm>.

¹³⁶ Pareles, "Ali Farka Touré, Grammy-Winning Musician of West Africa, Dies."

¹³⁷ "Bio," Vieux Farka Touré, accessed September 3, 2016, <http://www.vieuxfarkatoure.com/bio/>.

¹³⁸ Larry Rohter, "From Mali to Israel, a Musical Bridge," *New York Times*, November 17, 2014, <http://www.nytimes.com/2014/11/18/arts/music/from-mali-to-israel-a-musical-bridge.html>.

commonalities can be leveraged to counter the incubation or spread of violent extremism in disenfranchised or marginalized communities.

4. Modern Rap and Hip-Hop

While many Malian musicians are making modern music in the tradition of Malian music types outlined earlier, this section focuses on modern hip-hop and the urban youth music movement in Mali and their roles leading up to and following the coup. When rap first arrived in Mali in the mid-1980s, the Malian youth mimicked the American and French rappers. By the late 1980s, rap groups were popping up all over Mali, and Malian rappers were beginning to rap in their own language, Bambara.¹³⁹ In the 1990s, following the 1991 overthrow of Moussa Traore's military dictatorship, Malian rap earned its place on the frontline of commentary against the increasingly corrupt and nepotistic government. Rap threesome Tata Pound, named after the ancient wall protecting the city of Sikasso against invaders, paved the way with songs like "Cikan President" ("Message to the President") and "Fatobougou" ("The Village of Madmen"). "President...corruption, we don't want it! Nepotism...we don't want it! Robbing from the state...we don't want it!"¹⁴⁰ They were accurately expressing the collective disdain of the youth at the time, but their style or approach did not necessarily sit well with the more traditional A-list musicians.

Per Malian tradition and customs, openly accusing or insulting someone directly is against cultural norms, and in the old days, this was the sole responsibility of the griot. There is some friction then between griots and modern rappers. The griots generally consider the rappers disrespectful and criticize their lack of *mogoya*, a Bamana word meaning "the capacity to manage and communicate feelings with tact and restraint."¹⁴¹ Rappers for their part have little

¹³⁹ "The Voice of the Voiceless: An In-Depth Portrait of Mali's Hip Hop Scene," Red Bull Music Academy Daily," 12, accessed September 21, 2016, <http://daily.redbullmusicacademy.com/2014/04/mali-rap-feature>.

¹⁴⁰ Ibid., 14.

¹⁴¹ Ibid., 16.

tolerance for the griots' doublespeak and over-proclivity for deference, not to mention the privileged relationships griots enjoy with their upper-class patrons.¹⁴² According to rapper Mylmo, "The griots are there to sing praises. But they ignore the negative side. So in a way, rap is there to fill in the gap."¹⁴³

In the months leading up to the 2012 coup, Malian rappers were all too happy to fill in the gaps for the politicians in Bamako, but no one was listening, or if they were, they were not doing anything about it. In 2011, rapper and activist Amkoullel wrote "SOS" with Mylmo, a song about the "disastrous situation in the country."¹⁴⁴ According to Amkoullel, "Everyone in Mali, especially in Bamako, felt that something was going to happen." Eight months later it did.

Almost immediately following the 2012 coup, rappers banded together to form activist groups and collectively cry out against what was happening. Members of Tata Pound formed Les Sofas de la Republique, named after the sofa warriors of the Manding Empire, particularly the sofas fighting for Malian hero Samory Toure, who held back the colonial French armies in the late 19th century.¹⁴⁵ As described earlier, this is a clear example of music being used to commemorate heroes and historic events, as discussed earlier. Amkoullel started his own collective called Plus Jamais Ca! (Never Again). These collectives wrote songs and made videos condemning the coup and calling for change in Mali, but in the end, it is important to note that their grievances were not the grievances of the Tuaregs in the north. The call for a united democratic Mali likely did little to satisfy the underlying issues affecting the Tuaregs. Based on this research it appears that rappers in Bamako were concerned more about the coup than about the Islamist takeover in the north, but that assessment warrants further research and validation.

¹⁴² Ibid., 17.

¹⁴³ Ibid., 18.

¹⁴⁴ Morgan, *Music, Culture and Conflict in Mali*, 59.

¹⁴⁵ "The Voice of the Voiceless," 29.

The overview of Malian music presented in the preceding sections barely scratches the surface, but even so, it begins to provide an idea of the complexity of the musical and cultural dynamics in the country. In order to realize the full potential of the “lens” functionality proposed for this framework, dedicated ethnomusicologists would need to be assigned, and people like Tinariwen manager-turned-journalist Andy Morgan or Festival au Desert producer Manny Ansar, both of whom who have years of experience in the Mali music scene, should be consulted.

C. AKOUNAK TEDALAT TAHA TAZOUGHAI (“RAIN THE COLOR OF BLUE WITH A LITTLE RED IN IT”): CITIZEN DIPLOMACY THROUGH MUSICAL ENGAGEMENT

The third approach or function of the ethnomusicology framework recommended herein is the most critical because it addresses the root causes of and not just the symptoms of violent extremism. By using ethnomusicology, or more accurately music, as a bridge to engage populations that may be vulnerable to radicalization, counterterrorism policymakers can eliminate the space within which violent extremist organizations can recruit and survive. In particular, this branch of the framework espouses a whole-of-nation approach that fully leverages the vibrant U.S. and global music industry in addition to U.S. and non-governmental organization operations to horizontally engage at-risk populations through music. What follows are examples of projects that could be supported via grants through TSCTP funding, for instance, in order to promote engagement via musical common ground in Mali and the Sahel.

1. The Tuareg *Purple Rain*

In 2015, ethnomusicologist Christopher Kirkley released the Tamashek-language film *Akounak Tedalat Taha Tazoughai*, which literally translates to “rain the color of blue with a little red in it.”¹⁴⁶ This Tuareg remake of Prince’s 1984

¹⁴⁶ Christopher Kirkley, *Akounak Tedalat Taha Tazoughai*, Drama, Musical, Romance, (2015), <http://www.imdb.com/title/tt4675526/>.

cult classic *Purple Rain* chronicles the fictional but autobiographical rise of Tuareg guitarist Mdou Moctar. The effort began as a kick-starter project completely unrelated to formal policy on counter violent extremism, but it can be argued that the project and others like it are complementary to regional CVE efforts for a couple of reasons. First, the project provided a vehicle, however small, for Mdou Moctar and other Tuareg participants in the project to present their culture and forge their identity in a way for a potential global audience. Although the script was originally based on *Purple Rain*, the actors made changes to the story to better reflect their own lives. According to Kirkley, “The actors constantly vetoed their lines and changed scenarios to create something that was more accurate, more culturally [and] personally appropriate.”¹⁴⁷

Second, the project had a direct impact on Mdou Moctar’s musical career, fueling follow-on tours to Europe, Canada, and the United States.¹⁴⁸ In this way, the project affords Moctar and others like him to air their grievances informally, or in some cases formally, on the global stage. By providing a constructive voice or outlet for disenfranchised populations like the Tuareg in Northern Mali and Niger, music can provide an essential relief valve that can go a long way toward preventing radicalization “left of bang.” As discussed earlier, this concept is particularly potent in a region like the Sahel, where music and oral history is such a foundational component of the cultural of both Tuareg and black African ethnic groups.

Finally, the project provides a window for Western observers into a largely misunderstood corner of the world. It provides a “lens” through which the public and analysts alike might challenge or confirm their preconceptions. What better way to challenge ethnocentrism than to take something as uniquely Western as

¹⁴⁷ Zach Goldhammer, “Purple Rain in the Saharan Desert,” *Atlantic*, February 6, 2015, <http://www.theatlantic.com/international/archive/2015/02/purple-rain-in-the-saharan-desert/385234/>.

¹⁴⁸ “‘Purple Rain’ Falls on the Sahara in African Adaptation,” *Rolling Stone*, accessed September 20, 2016. <http://www.rollingstone.com/movies/features/purple-rain-falls-on-the-sahara-in-brilliant-african-adaptation-20150508>.

Prince's *Purple Rain* and offer it to Saharan Desert youth for re-interpretation. The title in and of itself serves as a red warning flag to any intrepid Western observer preparing to take the plunge into understanding the cultural dynamics of the Sahel. "We were going to change [the title] for the actual release, but everyone in Niger already knows it by the title." Kirkley said, "And there's something poetic about it, something in the title that reflects our own attempt at cross-cultural translation."¹⁴⁹

2. The Festival Au Desert

It was a bold idea... "After many conversations and cups of bitter syrupy tea they decided to stage a festival of Taureg music and culture in the desert around the first full moon of the new millennium."¹⁵⁰ A year later, in January 2001, the Association Efes, a Mali-based organization to forward the social, political, and cultural development of Mali's north, with help from Tinariwen, French group Lo'Jo, and several French and Malian funders held the first Festival au Desert in Tin Esseko a small village east of Kidal.¹⁵¹ By 2003, the festival had come in to its own and with attendees like Robert Plant, the legendary front man for Led Zeppelin, the event had established a worldwide reputation. Like the projects discussed in the previous section, significant cultural events like the Festival au Desert can go a long way toward inoculating a region or population to the pressure of violent extremism. Unfortunately, this would not be the case for the Festival au Desert.

Shortly after the 2003 festival, European hostages were kidnapped in Southern Algeria, the same hostages whose freedom eventual Ansar ud-Dine leader Iyad Ag Ghali would help negotiate. Then in 2007, the GSPC pledged allegiance to al Qaeda and became AQIM, spurring a series of travel warnings

¹⁴⁹ Goldhammer, "Purple Rain in the Saharan Desert."

¹⁵⁰ Andy Morgan, "Dragon Collective—Festival in the Desert," accessed September 21, 2016, <http://www.dragoncollective.co.uk/submissions/desertfestival.html>.

¹⁵¹ Ibid.; Morgan, *Music, Culture and Conflict in Mali*, 30.

for the north of Mali from foreign ministries in Europe and America.¹⁵² In 2010, the State Department issued a document advising all Americans against traveling to Timbuktu and “to the world-renowned Festival in the Desert.”¹⁵³ What if, as a matter of policy, the State Department had done just the opposite? What if, through the TSCTP, the State Department made it a subsidiary objective to work with the Malian government and security forces in the north to ensure security for the Festival au Desert, and then encouraged American participation by promoting increased cultural engagement? This course of action might have served two objectives. First it could have provided opportunities to further the TSCTP’s border security and law enforcement lines of effort through focused cooperation with Malian security forces. Second, germane to this research, cooperation around the production and execution of the Festival au Desert would provide situational awareness invaluable to ongoing CVE operations in the area. It is “hearts and minds” at its best.

The Malian security forces did in fact provide security and Westerners continued to attend the Festival au Desert. The festival director, Manny Ansar, was able to leverage relationships with members of the Tuareg rebel movement to ensure safety for the festival. “They were people with wide connections who knew the currents and pressure points of Saharan politics.”¹⁵⁴ Ironically, Ansar recalls Bono, the lead singer of U2, asking him to call off the soldiers directed to protect him at the 2012 festival.

I said to the military, “Look, if he wants to go off like that, just let him do it.” He used to wander off in the dunes; we would take tea there. People think I had some kind of divine force to protect my visitors. And finally, I almost ask myself if it isn’t true. Imagine, Bono kidnapped!¹⁵⁵

¹⁵² Morgan, *Music, Culture and Conflict in Mali*, 31.

¹⁵³ Ibid., 33.

¹⁵⁴ Ibid., 32.

¹⁵⁵ Ibid., 33.

Less than three months later, Ansar ud-Dine took control of Timbuktu and the Festival au Desert was forced in to exile. According to Manny Ansar:

I understood that my only way to resist was to continue to be involved in music, to continue promoting festivals. It was my way of fighting back and showing that you can't kill music just because Timbuktu has been occupied, that Tuareg and Malian music will be heard even more and even further afield. Before our music was heard in Essakane, at the Tamadacht Festival or in Essouk. Today it'll be heard in all the big festivals in the world. So it is the opposite of what you, the Islamists, want. It is our victory and your defeat.¹⁵⁶

The Festival au Desert remains in exile today, but bringing the festival back to Timbuktu, or even better back to the dunes of Essakane, would present an enormous moral victory for the people of Mali against violent extremism in their country.

3. Music Production and Music Industry Projects

The music industry itself is an ideal avenue of approach for citizen diplomacy in Mali. Mali has already established itself as a global musical powerhouse, but there is still significant room to grow, particular in the way of musical production capabilities and more importantly, making those capabilities available to a wider group of up-and-coming Malian musicians. The benefits to expanded commercial engagement though the American music industry in Mali are tri-fold in that they can serve ethnomusicological, economic, and security objectives. In her paper, "Music Production as a Tool of Research, and Impact," ethnomusicologist Lucy Duran proposes that an album or CD, "produced with a sensitivity to a musical culture nurtured by long research, has the potential to have far greater impact than a publication in a scholarly journal."¹⁵⁷ Duran considers this a form of "research-based practice" versus "practice-based research," and this approach is fundamental to the citizen diplomacy methods proposed in this thesis.

¹⁵⁶ Ibid., 34.

¹⁵⁷ Lucy Duran, "Music Production as a Tool of Research, and Impact," *Ethnomusicology Forum* 20, no. 2 (August 2011): 245.

Economically, it is unlikely that the music industry will provide the ultimate solution for Malians. Mali remains among the 25 poorest nations in the world and gold and cotton make up 80% percent of its export. The country is developing its iron ore extraction capability in an effort to diversify, but for all intents and purposes, agriculture and mining will remain the mainstay of the national gross domestic product and it is unlikely that a developed music industry will have a significant impact on the numbers. However, in areas like the deserts of the north and the city centers of the south where agriculture is not a viable option and the unemployment rate is 30%, there is the potential that efforts made to foster an independent music industry could provide at least some economic relief. Engagement and investment by the U.S. music industry can provide jobs for more than just musicians. It can offer opportunities for Malian youth to pursue jobs in production, promotion, artist management, etc.

Increased private industry investment in local Malian music production can enhance security and CVE efforts, by “filling in” the spaces within the population where violent extremism is able to incubate, similar to the other citizen diplomacy recommendations. Malians are proud of their music and the support they get from the rest of the world is not lost on the musicians.

I'm taking this opportunity to thank the entire European, American, Asian music business for its support for the cause of Malian music. And the people who come and learn music here, or even people who buy tickets to go and see the different Malian musicians in concert, I take this opportunity to say thanks and bravo to you all, may the struggle continue.

—Toumani Diabate, Malian Kora Player¹⁵⁸

Conventionally, government efforts to leverage music as a tool to counter violent extremism is oriented in the realm of information operations and messaging to counter the messaging of violent extremist organizations (VEO). While this research considers this a valid use of music for CVE, it is important to emphasize that this is not the intent of the “bridge” approach of the proposed

¹⁵⁸ Morgan, *Music, Culture and Conflict in Mali*, 66.

map-lens-bridge framework. The private-sector engagement discussed earlier is based on music for the sake of music, and in that sense must be free of any governmental ulterior motive in order to maintain authenticity and be effective in the long run.

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V. RECOMMENDATIONS

The following list of implementation recommendations starts broadly with an overall expansion to whole-of-nation approach to CVE and narrows to include specific recommendations for applying ethnomusicology for CVE according to the map-lens-bridge framework. It is not comprehensive but rather intended to provide some ideas for policy-makers. Further, it is critical to recognize that although the framework is built on three different lines of effort (target, learn, and engage), these lines of effort are not mutually exclusive or intended to have a sequential relationship. This research proposes that a successful strategy for tackling violent extremism in the Sahel will involve effectively orchestrating the execution of operations across the entire framework in parallel and targeting bad actors while at the same time engaging the at-risk populations they seek to radicalize. To implement this research, U.S. policy makers should consider the following:

1. **Adopt a whole-of-nation approach modeled after cyber security or fragile state policy.** As recent reports have shown, TSCTP has been successful achieving multi-agency cooperation for a whole-of-government approach via the 3Ds: defense, diplomacy, and development. To maximize results, the program should identify whole-of-nation or private-sector activities that are operating relative to each of its lines of effort and leverage the 3Cs to ensure non-governmental and private efforts in the region are coherent, coordinated, and complementary to TSCTP efforts.
2. **Draft a strategy to implement ethnomusicology as a fundamental element of the whole-of-nation approach:** The ethnomusicology aspect could be implemented as either a separate line of effort synchronizing government, NGO, and private-sector engagement through music. Alternatively, ethnomusicology could be incorporated into the “counter spread of violent extremist ideologies” line of effort.
3. **Fund an ethnomusicologist advisor to TSCTP’s Standing Interagency Working Group (SIWG):** The SIWG meets monthly in Washington, DC, and monitors resource allocation, interagency coordination, and strategic objectives. Absent a permanently

funded staff organization for TSCTP, this working group would be the best place for a dedicated ethnomusicologist.

4. **Fund grants for the U.S. private-sector music industry to engage with the Mali music industry:** The research supports the notion that Malians consider music as one of their staple exports. Therefore, a healthy relationship between the Western music industry and the musicians, producers, and venues of Mali should be a foundational aspect of U.S. economic exchange with Mali. By funding grants to support private and academic music projects, TSCTP can promote coherence and coordination and more focused government activities through Voices of America or USAID.
5. **Support reestablishment of Festival au Desert in Timbuktu:** Prior to 2012, the Festival au Desert was the dominant international symbol for northern Mali and Mali as a whole. Resumption of the annual festival alone is a worthy objective of counterterrorism policy in the Sahel, and once resumed, the festival will facilitate continued whole-of-nation engagement opportunities in the long term. This objective also provides an opportunity to synchronize government activities, like border security and law enforcement with non-government and private activities, such as the production and management of the festival.
6. **Fund research and development for tracking file transfer over Bluetooth or cellular networks:** The development and implementation of technology to track discrete digital artifacts through the cellular networks in the Sahel could be funded through government agencies like the Defense Advanced Research Projects Agency or the Office of the Secretary of Defense Joint Test and Evaluation. Alternatively, private-sector innovation could be leveraged through the new DOD “venture capital” arm, Defense Innovation Unit Experimental.

VI. CONCLUSION

The research conducted herein validates the applicability of ethnomusicology as a framework to enhance counterterrorism policy and operations in the Sahel. By merging Alan P. Merriam's concepts on the responsibilities of ethnomusicologists (technical, academic, social/behavioral) and his theoretical research model for ethnomusicology (music, behavior, concept), the resulting map-lens-bridge (target, learn, engage) framework provides policy makers and practitioners with a focused method to leverage ethnomusicology to counter violent extremism. By pursuing the recommendations outlined in this research, policy makers can incorporate ethnomusicology as an innovative line of effort by which CVE programs like TSCTP can be expanded to a whole-of-nation approach that more effectively targets the core vulnerabilities in the Sahel.

A. RECOMMENDED ADDITIONAL RESEARCH

The map-lens-bridge framework can also guide follow-on research to this thesis. In the effort to map peer-to-peer networks in the Sahel, further technological research and development should be conducted to confirm that the proposal is in fact feasible, and to take the proof of concept through to execution. Further, researchers can leverage existing technology for mapping social media networks to further enhance the ability to map music-related networks in the region. Once internet or cellular technology becomes widely available in the Sahel, the window of opportunity to map the digital footprint of the physical peer-to-peer network for music sharing will come to an end.

From the "lens" perspective, there should be further and more detailed research into the current music and digital media being created in the Sahel. Specifically, areas of commonality between up-and-coming artists from both regions might be researched and provide indicators for future collaboration. True academic ethnomusicology research in the Sahel should be conducted in support

of continuing operations to counter violent extremism in the Sahel. Additionally, the digital imagery psychological matrix analysis conducted in this thesis should be used to conduct a comparative analysis between Tuareg, black African, and Western sample groups.

Finally, follow-on research for establishing an enduring engagement “bridge” through music in Mali needs to focus on the academic and economic requirements. Further research on business development opportunities and social benefits of academic music and art programs for youth in Mali is warranted in order to understand how best to tailor engagement across the patchwork of ethnicities and cultures represented in Mali. The “research-based practice” approach espoused by ethnomusicologist Lucy Duran and discussed earlier might be an excellent start.

B. THE WORLD WOULD HEAR MY SONG

In the meantime, French and Malian military forces have driven the Islamists out of the urban centers of northern Mali. In many ways, things in Mali are back to normal. But below the surface, friction between the Tuaregs and their fellow black African Malians still exists and will continue to present an opportunity for violent extremist organizations and transnational organized crime syndicates that operate in the Sahel to recruit and radicalize marginalized youth. Andy Morgan’s somewhat prophetic assessment from 15 years ago, following the 2001 Festival au Desert remains tragically relevant, almost *de ja vu*.

Many of the old combatants now realise that the fight must be pursued with the weapons of media and mass communications, rather than swords and Kalashnikovs. Up until now theirs has been a largely hidden war, known to only a few mainly French desert enthusiasts and experts. On the back of the festival there have been prominent features in the French daily Liberation, The Times of England, Uncut Magazine and Billboard.... The recordings of Tinariwen are likely to surface either this year or early next year as a CD with European or even worldwide distribution. These are major victories in a propaganda war which has only really just begun. Despite their geographical isolation the Touaregs are astute and aware political observers. Listening to the BBC world service is

a favourite pastime and they are acutely aware that they need to use these new weapons of mass communication if they are to have any hope to achieving their aims. As one of Tinariwen songs go: “If I could sing so that those in London could hear, then the whole world would hear my song.”¹⁵⁹

One Grammy, eleven festivals, thirteen months of Sharia law, and a *Purple Rain* remake later, the disenfranchised Tuaregs of Northern Mali continue to sing out, but it remains to be seen whether the world will truly hear their song.

¹⁵⁹ Morgan, “Dragon Collective—Festival in the Desert.”

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APPENDIX

IMAGE	Tuareg or Mande	Forging Identity	Airing Grievance	PSYCH FUNCTIONS																English	Arabic	Banana					
				Honoring Heroes	Labeling Enemies	Military	Combat	Violence	Indepen- dence	Azawad	Unity	Peace	Religion	Islam	Western Culture	Music	Wealth	Romance	Feminine				Masculine Self- Aggrandizing	Cyborg	Social Media	French	Tamashek
	T	X				x			x	x	x														x		
	T	x								x	x						x	x							x	x	
	M																	x			x				x		
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	M	x																	x								
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	T	x								x														x			

Figure 13. Imagery Data Collection.¹⁶³

¹⁶³ Source: Sahel Digital Art, accessed October 2, 2013, sahel-digital-art.com.

IMAGE	Tuareg or Mande	Forging Identity	Airing Grievance	Honoring Heroes	Labeling Enemies	Military	Combat	Violence	Independence	Azawad	Unity	Peace	Religion	Islam	Western Culture	Music	Wealth	Romance	Feminine	Masculine	Self- Aggrandizing	Cyborg	Social Media	French	Tamashek	English	Arabic	Bamana
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	T			x												x					x							
	T	x							x	x														x			x	
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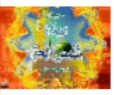
IMAGE	Tuareg or Mande	Forging Identity	Airing Grievance	Honoring Heroes	Labeling Enemies	Military	Combat	Violence	Independence	Azawad	Unity	Peace	Religion	Islam	Western Culture	Music	Wealth	Romance	Feminine	Masculine	Self- Aggrandizing	Cyborg	Social Media	French	Tamashek	English	Arabic	Bamana
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IMAGE	Tuareg or Mande	Forging Identity	Airing Grievance	Honoring Heroes	Labeling Enemies	Military	Combat	Violence	Independence	Azawad	Unity	Peace	Religion	Islam	Western Culture	Music	Wealth	Romance	Feminine	Masculine	Self- Aggrandizing	Cyborg	Social Media	French	Tamashek	English	Arabic	Bamana
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IMAGE	Tuareg or Mande	Forging Identity	Airing Grievance	Honoring Heroes	Labeling Enemies	Military	Combat	Violence	Independence	Azawad	Unity	Peace	Religion	Islam	Western Culture	Music	Wealth	Romance	Feminine	Masculine	Self- Aggrandizing	Cyborg	Social Media	French	Tamashek	English	Arabic	Bamana
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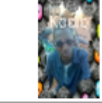
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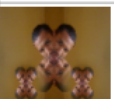
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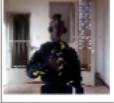
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IMAGE	Tuareg or Mande	Forging Identity	Airing Grievance	Honoring Heroes	Labeling Enemies	Military	Combat	Violence	Independence	Azawad	Unity	Peace	Religion	Islam	Western Culture	Music	Wealth	Romance	Feminine	Masculine	Self- Aggrandizing	Cyborg	Social Media	French	Tamashek	English	Arabic	Bamana
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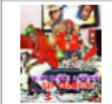
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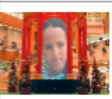
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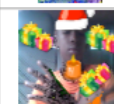
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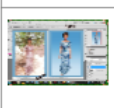
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IMAGE	Tuareg or Mande	Forging Identity	Airing Grievance	Honoring Heroes	Labeling Enemies	Military	Combat	Violence	Independence	Azawad	Unity	Peace	Religion	Islam	Western Culture	Music	Wealth	Romance	Feminine	Masculine	Self-Aggrandizing	Cyborg	Social Media	French	Tamashek	English	Arabic	Bamana
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