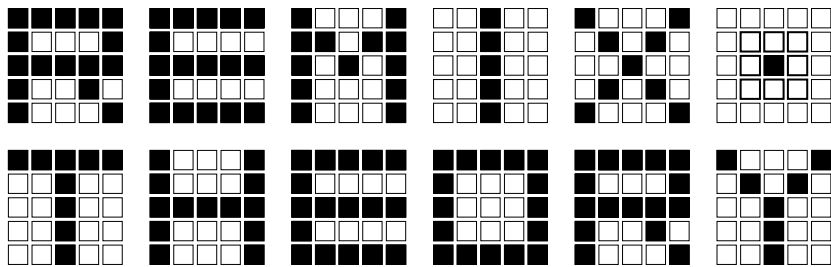


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THE AESTHETICS OF SAMPLING

SpringerWienNewYork

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CONTENTS

Acknowledgments [vii]

Preface [xi]

INTRODUCTION: REMIX AND NOISE [1]

CHAPTER ONE: REMIX[ING] SAMPLING [9]

Sampling Defined (11) — The Three Chronological Stages of Mechanical Reproduction (17) — The Four Stages of Remix (20) — Analytics: From Photography to Remix Culture (22) — The Regressive Ideology of Remix (27)

CHAPTER TWO: REMIX[ING] MUSIC [33]

A Night at Kadan, San Diego, CA (35) — Dub, B Sides and Their [re]versions in the Threshold of Remix (36) — The Threshold in Dub (37) — Dub: From Acetate to Digital (39) — Subversion and the Threshold (42) — Analytics: From Reggae to Electronic Dub (44) — Dub in Hip Hop, Down Tempo and Drum ‘n’ Bass (47) — Dub ‘n’ Theory (50) — Dub-b-[ing] the Threshold (53) — Dub ‘n’ Remix (58) — Bonus Beats: Remix as Composing (60)

CHAPTER THREE: REMIX[ING] THEORY [63]

Remix Defined (65) — Allegory in Remix (66) — Analytics: Variations of the Reflexive Remix in Music (68) — The Regenerative Remix (73) — Remix in Art (76) — The Waning of Affect in Remix (86) — Remix in the Culture Industry (89) — Mashups Defined (93) — From Music to Culture to Web 2.0 (100) — Web Application Mashups (101) — The Ideology Behind the Reflexive Mashup (103) Analytics: From Music Video to Software Mashups (105) — Sampling and the Reflexive Mashup (108) — Resistance in Remix (109) — Remix in History (111) — Remix in Blogging (120) — Bonus Beats: Remix in Culture (124)

CHAPTER FOUR: REMIX[ING] ART [129]

A Late Night in Berlin (131) — Remix is Meta (133) — The Role of the Author and the Viewer in Remix (134) — The Role of the Author and the Viewer in Performance and Minimalism (137) — New Media’s Dependence on Collaboration (141) — The Curator as Remixer (146) — Online Practice and Conceptualism (150) — The Regressive Ideology of Remix Part 2 (155) — Bonus Beats: The transparency of Remix (157)

CONCLUSION: NOISE AND REMIX [161]

Periférico, Mexico City (163) — After the Domestication of Noise (167) — Bonus Beats: the Causality of Remix (170)

Index [175]

We must know the right time to forget
as well as the right time to remember,
and instinctively see when it is necessary
to feel historically and when unhistorically.

Friedrich Nietzsche

My goal in this analysis is to evaluate how Remix as discourse is at play across art, music, media, and culture. Remix, at the beginning of the twenty-first century, informs the development of material reality dependent on the constant recyclability of material with the implementation of mechanical reproduction. This recycling is active in both content and form; and for this reason throughout this book I discuss the act of remixing in formal and conceptual terms. I focus on Remix as opposed to remix culture, which means that I consider the reasoning that makes the conception of remix culture possible. Remix culture, as a movement, is mainly preoccupied with the free exchange of ideas and their manifestation as specific products. Much has already been published about Remix under the umbrella of remix culture in terms of material development: how it is produced, reproduced, and disseminated. Its conflicts of intellectual property are also a central point discussed by activists such as Lawrence Lessig, a copyright lawyer whom I reference throughout my investigation. As I evaluated the principles of Remix for this analysis, I came to the conclusion that as a form of discourse Remix affects culture in ways that go beyond the basic understanding of recombining material to create something different. For this reason, my concern is with Remix as a *cultural variable* that is able to move and inform art, music, and media in ways not always obvious as discussed in remix culture. Remix culture is certainly founded on Remix, and for this reason it is referenced repeatedly through my chapters; but remix culture is not the subject of this investigation mainly because it is a global cultural activity often linked specifically to copyright; and Remix, itself, cannot be defined on these terms.

Throughout the chapters that follow, whenever I refer to Remix as discourse I use a capital “R.” Discourse is commonly understood in the humanities as an ever-changing set of ideas up for debate in written and oral form. However, I also consider discourse to include all forms of communication, not just writing and oral communication. When the term is used in the humanities, it is often linked to Michel Foucault. My use of discourse is certainly informed by his definition (debates within and among specialized fields of knowledge), and I do extend Foucault’s definition to media

at large, because at the beginning of the twenty-first century it is media as a whole that is treated as a form of writing; or rather, *media is discourse*.¹ Therefore I argue that Remix is not an actual movement, but a binder—a cultural glue. Based on this proposition, the analysis performed in the following chapters should demonstrate that Remix is more like a virus that has mutated into different forms according to the needs of particular cultures.² Remix, itself, has no form, but is quick to take on any shape and medium. It needs cultural value to be at play; in this sense Remix is parasitical. Remix is meta—always unoriginal. At the same time, when implemented effectively, it can become a tool of autonomy. An example of this can be found in the beginnings of Remix in music.

Remix has its roots in the musical explorations of DJ producers; in particular, hip-hop DJs who improved on the skills of disco DJs, starting in the late sixties. DJs took beatmixing and turned it into beat juggling: they played with beats and sounds, and repeated (looped) them on two turntables to create unique momentary compositions for live audiences. This is known today as turntablism. This practice made its way into the music studio as sampling, and eventually into culture at large, contributing to the tradition of appropriation.

Cut/copy and paste is a common feature found in all computer software applications, and currently is the most popular form of sampling practiced by anyone who has access to a computer. Cut/copy and paste extends many of the principles explored by DJs and previous cultural producers in the twentieth century. Keeping in mind the link of sampling and appropriation to cut/copy and paste, I argue that Remix is a discourse that encapsulates and extends shifts in modernism and postmodernism; for if modernism is legitimated by the conception of a Universal History, postmodernism is validated by the deconstruction of that History. Postmodernism has often been cited to allegorize modernism by way of fragmentation, by sampling selectively from modernism; thus, metaphorically speaking, postmodernism remixes modernism to keep it alive as a valid epistemological project.³

To come to terms with the importance of Remix during the first decade of the twenty-first century, then, we must consider its historical development. This will enable us to understand the dialectics at play in Remix, which at the beginning of the twenty-first century is the foundation of

¹ For the concepts of discourse and episteme, see Michel Foucault, *The Order of Things* (New York: Routledge, 2001).

² This is a reference to William Burroughs's views on language as a virus. See Williams S. Burroughs, *The Ticket That Exploded* (New York: Grover Press, 1987).

³ This is a reference to the critical positions of Jean Francois Lyotard and Fredric Jameson. Their ideas are discussed in chapter three.

remix culture. Remix came about as the result of a long process of experimentation with diverse forms of mechanical recording and reproduction that reached a meta-level in sampling, which in the past relied on direct copying and pasting. Certain dynamics had to be in place in the process of mechanical recording and reproduction for sampling to become part of the everyday, and they first manifested themselves in music at the end of the nineteenth century, framed by the contention of *representation* and *repetition*.

Political economist Jacques Attali has reflected at length on the relation of representation and repetition, arguing that the power of the individual to express herself through performance, a primary form of representation, particularly of musical material, shifted when recording devices were mass produced. Once recording took place, repetition—not representation—became the default mode of reference in daily reality; a common example, at the beginning of the twenty-first century, is the willingness of individuals to purchase and listen to a music compilation in CD or MP3 format. This form of musical experience is different from a live performance. Following Attali's line of thinking, the power of repetition here is in the fact that the user sees a practicality in listening to a recording as frequently as desired. Going to a performance, on the other hand, implies a different experience that requires a deliberate commitment to a social activity. Often the material one expects to hear live is compositions of which one already bought recordings, or at least heard previously on the radio; thus the live performance is linked to some form of reproduction, defined by repetition. For these reasons I argue that repetition and representation have a contentious relationship in contemporary culture and play a key role in modernism, postmodernism, and new media during the first decade of the twenty-first century.

Attali sees music as the domestication of noise during the nineteenth century. Music became, and is, a political medium that enables Capital to become the default form of cultural exchange. He considers this domestication important in the understanding of culture throughout modernity and argues that it is in the domestication of noise where one can learn about the effects of the world:

More than colors and forms, it is sounds and their arrangements that fashion societies. With noise is born disorder and its opposite: the world. With music is born power and its opposite: subversion. In noise can be read the codes of life, the relations among men. Clamor, Melody, Dissonance, Harmony; when it is fashioned by man with specific tools, when it invades man's time, when it becomes sound, noise is the source of purpose and power, of the dream—music.⁴

⁴ Jacques Attali, *Noise The Political Economy of Music* (Minneapolis: Minnesota Press, 1985), 6.

Using Attali's theory as a conceptual framework and starting point, my goal is to demonstrate how Remix is closely linked to the domestication of noise, which eventually became a model for autonomy in modernism and postmodernism. I approach Remix as Attali approaches Music. He considers music the result of the domestication of noise; I consider Remix to be the result of the domestication of noise on a meta-level of power and control, as simulacrum and spectacle. Applying Attali's theory of noise to Remix exposes how and why Remix is able to move with ease across media and culture, both formally and conceptually. For this reason, my investigation of Remix in art, music, and media is not primarily concerned with productions or objects popularly considered remixes, such as music remixes or video mashups; instead the popular understanding of remix is taken as the point of departure to look at works and activities that clearly use principles of Remix, but may or may not be called remixes. My analysis also considers how Remix principles originally found in the concrete form of sampling as understood in music remixes move on to other forms, though not always in terms of actual sampling, but as citations of ideas or other forms of reference. In other words, my investigation traces how principles found in the act of remixing in music become *conceptual strategies* used in different forms in art, media, and culture.

I argue that Remix, starting in the nineteenth century, has a solid foundation in capturing sound, complemented with a strong link to capturing images in photography and film. Given the role of these media in art practice, it became evident to me that art is a field in which principles of remix have been at play from the very beginning of mechanical reproduction—hence the prevalence of art aesthetics throughout the chapters.

During the 1970s the concept of sampling became specifically linked to music, and, towards the end of the '90s, all forms of media in remix culture. It is the computer that made the latter shift possible. This does not mean that Remix is not informed or intimately linked with other cultural developments; on the contrary, Remix thrives on the relentless combination of all things possible. However, for the sake of precision, I emphasize the role of textuality in terms of structural and poststructural theory. Admittedly, my definition of Remix privileges music because it is in music where the term was first used deliberately as an act of autonomy by DJs and producers with the purpose to develop some of the most important popular music movements of the 1970s: disco and hip-hop.

I also pay specific attention to the foundation of Remix in music because, according to Attali, it is in the domestication of music where we can find the roots of modernism proper: "For twenty-five centuries, Western knowledge has tried to look upon the world. It has failed to understand that the world is not for the beholding. It is for the hearing. It is not legible, but

audible.”⁵ Attali, by providing a critical reading of music as domesticated noise, is able to expose how specific conflicts are at play in different areas of culture; conflicts such as subversion of individual expression in an economy of specialization, as well as the control of knowledge in a global class struggle. My focus on the origin of Remix in music aims to have a similar effect for remix culture, as well as new media, in close relation to art practice. My reading of Remix and its intimate relation to music should be viewed, then, as one way of theorizing about a culture defined by recyclability and appropriation. My hope is that my research will be considered complementary to other studies of Remix and remix culture. Throughout the chapters I implement cultural analytics methodologies, meaning that I make use of statistics and graphs, and other types of data visualization in order to better understand information that otherwise would function as abstract footnote references. The implementation of cultural analytics makes this publication a contribution to the interdisciplinary research practice of the digital humanities, which consists of the adoption of computing by the humanities.⁶

The four chapters of this book were written to note how Remix has its roots in the early stages of mechanical recording and reproduction, starting in the nineteenth century. As noted above, a crossover between art, media and music was inevitable, hence the chapters reflect on these fields in order to demonstrate how the principles of Remix constantly shift across media. To accentuate how Remix is at play in a micro and macro level, some of the chapters contain personal anecdotes in which Remix was experienced.

According to the critical framework that I have proposed in this introduction, chapter one, “Remix[ing] Sampling,” defines the roots of Remix in early forms of mechanical reproduction. It outlines seven stages beginning in the nineteenth century with the development of the photo camera and the phonograph that lead up to the current state of Remix, and evaluates how recorded material redefines people's concept of representation. The first three stages are called “Stages of Mechanical Reproduction,” and the remaining four “Stages of Remix.” The chapter also outlines the difference in sampling at play in visual culture and music culture, and explains how such differences collapsed with the rise of the computer.

Chapter two, “Remix[ing] Music,” explains the rise of dub in Jamaica during the 1960s and ‘70s, the experimentation with remixing in New York City during the late ‘70s and early ‘80s, the development of remix as a style from the mid ‘80s to the late ‘90s, and the global rise of remix cul-

⁵ Ibid, 3.

⁶ To learn more about cultural analytics, see <http://lab.softwarestudies.com/>

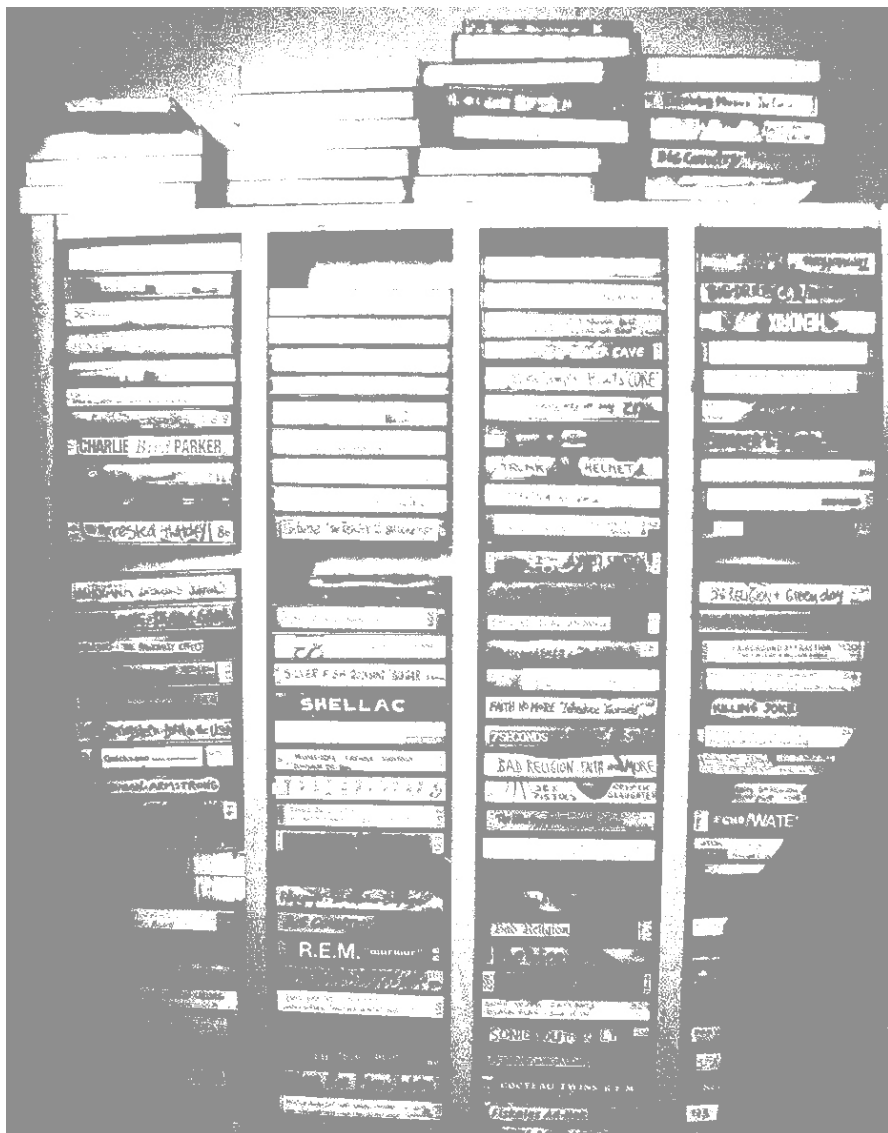
ture from the end of the '90s to the time of this writing. Chapter two also expands on the definition of Remix outlined in chapter one to demonstrate how Remix moves beyond basic material production into an ideological realm, where it becomes a political tool. To accomplish this, the chapter re-evaluates the writings of Hommi Bhabha and Michael Hardt & Antonio Negri in relation to Remix as a form of critical production. This is done to reflect upon not just the historical development, but also the cultural politics that inform Remix.

Chapter three "Remix[ing] Theory" consists of a concise definition of Remix as a proper action in music. It makes use of the historical and cultural contextualization set in the previous two chapters to define specific forms of Remix. Chapter three focuses on Remix's beginning in music during the 1970s and its eventual influence in art and media. It includes analysis of modern and networked art projects, software applications and literature, including Remix's evolution as blogging. Attali's definition of noise and music are explained extensively, and linked to arguments by Theodor Adorno. Craig Owens's and Fredric Jameson's theories of postmodernism are discussed in detail throughout the chapter in order to gain a better understanding of the development of modernism and postmodernism in the twentieth century. Chapter three explores Remix in art, music, and media, and lays the ground for the study of other critical strategies that also inform Remix, which are considered in the last chapter and conclusion.

Chapter four, "Remix[ing] Art" expands on how principles of sampling considered in chapter one share strategies as a political tool with forms of appropriation at play in conceptualism, minimalism, and performance art. It examines specific new media works in order to assess the interchangeable role of artists and curators. This chapter applies the theories of authorship by Roland Barthes, as well as Michel Foucault to networked projects to better understand how collaboration has become a conventional act in media culture, informed by the concept of textuality and reading as defined in terms of critical discourse. Sampling is linked in this case to the preoccupation with reading and writing as an extended cultural practice beyond textual writing onto all forms of media. In the conclusion, I reflect on the history and theory I outlined throughout the four chapters of the book.

In this publication, I deliberately leave an open-ended position for the viewer to reflect on the implications of cultural recyclability. I do not attempt to provide a specific answer, but rather offer material for critical reflection that may be considered a contribution to various fields of research in the humanities and social sciences. I do, however, take a critical position which I believe is already apparent in this introduction, but is further developed throughout the following chapters.

CHAPTER ONE: REMIX[ING] SAMPLING



Before Remix is defined specifically in the late 1960s and '70s, it is necessary to trace its cultural development, which will clarify how Remix is informed by modernism and postmodernism at the beginning of the twenty-first century. For this reason, my aim in this chapter is to contextualize Remix's theoretical framework. This will be done in two parts. The first consists of the three stages of mechanical reproduction,¹ which set the ground for sampling to rise as a meta-activity in the second half of the twentieth century. The three stages are presented with the aim to understand how people engage with mechanical reproduction as media becomes more accessible for manipulation. The three stages can be marked with the first beginning in the 1830s, when the rise of early photography took place; followed by the second in the 1920s, when experimentation of cut up methods were best expressed in collage and photomontage; and ending with the third, when Photoshop was introduced in the late 1980s. I also refer to the last as the stage of new media. The three stages are then linked to four stages of Remix, which take place between the 1970s to the present; they overlap the second and third stage of mechanical reproduction. This chapter, then, defines three stages in the development of mechanical reproduction to show how sampling became a vital element in acts of appropriation and recycling in modernism that then became conventions in postmodernism, which eventually evolved to inform and support Remix in culture.

SAMPLING DEFINED

Some specialists might propose sampling as a term reserved for music. However, the principle of sampling at its most basic level had been at play as a cultural activity well before its common use in music during the 1970s. I do not argue to change the term recording for sampling when discussing film, photography or early music recording; rather, my goal is to point out that recording and sampling are terms used at specific times in history in part due to cultural motivations. Sampling as an act is basically what takes place in any form of mechanical recording—whether one cop-

¹ Mechanical reproduction here is understood according to Walter Benjamin's well-known essay, "The Work of Art in the Age of Mechanical Reproduction." At the time that Benjamin wrote his essay, it was not possible for him to see completely where new technologies would lead the mass-produced image. Yet, he did set a methodological precedent to deal with possibilities when he explained how mechanical reproduction freed the object from cult value. Once taken out of its original context, the object gains the potential of infinite reproducibility; it enters the realm of exhibit value. See, Walter Benjamin, "The Work of Art in the End of Mechanical Reproduction," *Illuminations* (New York, Schocken, 1968), 217-251.

ies, by taking a photograph, or cuts, by taking a part of an object or subject, such as cutting part of a leaf to study under a microscope.

The concept of sampling developed in a social context that demanded for a term that encapsulated the act of taking not from the world but an archive of representations of the world. In this sense, sampling can only be conceived culturally as a meta-activity, preparing the way for Remix in the time of new media. Early recording, in essence, is a form of sampling from the world that may not appear as such to those used to the conventional terms in which the concepts of recording and sampling are understood. According to the basic definition of capturing material (which can then be re-sampled, re-recorded, dubbed and re-dubbed), sampling and recording are synonymous following their formal signification.

Sampling is the key element that makes the act of remixing possible. In order for Remix to take effect, an originating source must be sampled in part or in whole. However, sampling favors fragmentation over the whole. At the moment that mechanical recording became a norm to evaluate, understand, and define the world in early modernism, the stage was set for postmodernism. Postmodernism is dependent on a particular form of fragmentation, whose foundation is in early forms of capturing image and sound through mechanical recording, which, technically speaking, sampled from the world beginning in the nineteenth century.

Recording is a form of sampling because it derives from the concept of cutting a piece from a bigger whole. Because cutting was commonly understood as a form of taking a sample, the disturbing element of photography is that an exact copy appeared to be taken, as though it had been “cut” from the world, yet the original subject apparently stayed intact. To better understand this, it is necessary to evaluate the basic definition of sampling. Random House Dictionary states: “a small part of anything or one of a number, intended to show the quality, style, or nature of the whole; specimen.”² This general definition defaults to cutting, not copying materially. Looking back on the history of mechanical reproduction, it becomes evident that this definition was in part contingent upon the technology available for capturing images. It was in the nineteenth century when mechanical copying became possible, with machines designed to copy at an affordable price. The first form of mechanical copying with certain accuracy was the lithograph, which became quite popular in the 1830s.³ So,

² Dictionary.com Unabridged (v 1.1.1)

Based on the Random House Unabridged Dictionary, Random House, Inc. 2006, <http://dictionary.reference.com/browse/sample>.

³ Barbara Rhodes & Heraldry Bindery, “Materials & Methods/The Art of Copying,” *Before Photocopying: The Art & History of Mechanical Copying, 1780-1938* (Massachusetts: Oak Knoll Press & Heraldry Bindery, 1999), 21.

while the notion of copying from pre-existing texts or sampling a piece to represent a whole may have been at play to some degree in this time period, it was so with great possibility of inaccuracy or error in having some of the information missing. Prior to the popularization of mass printing, it would be up to scribes to copy as accurately as possible, but during the nineteenth century other forms of copying would start to be employed more pervasively.⁴

Once the idea of capturing from the real world (as a form of copying) entered the material world via mechanical reproduction, a major shift in culture began to take place in the nineteenth century with photography: the first technology that is fully invested in capturing as a form of sampling. While printing can be argued to have the basic elements of recording by way of sampling, the difference with photography is that photo media could in theory record an image of anything—it created accurate *copies* of the world; of course in the beginning this was unstable, as the success of developing an actual image from, say a calotype required great devotion and care in the process. Eventually, even text would be treated as another element from which to copy, capture (sample) in part or in whole: the microfilm is the most obvious example of this transition. Before digital scanning was possible, microfilm was one of the first databases of information relying on scanning as understood in new media. Most importantly, photography introduced the possibility for everyone to record images. In other words, with a broad sense of the term: *to sample* the world as they wished. Potentially, any person with the right equipment could take a piece of the world by making an image copy of a moment in time.

This challenged the control over mechanically produced material. The principle that enabled people to use a medium for private use was not the direct intent of print; if anything, print promoted the contrary. Print was and still is a one-way form of communication, in which the publisher holds ultimate control on what is printed. While it can be argued that today readers have greater power on what is published, it is still the publisher who will decide so based on politics. Print, then, is about quality control; its authority lies in the fact that from the very beginning only few people could learn and afford how to edit and print books properly. Today this is further complicated with the rising complexity of copyright.⁵ Photography challenged this control during its cultural introduction. During its early stages, photography validated itself as a mass medium by promoting the opportunity for anyone potentially to take photographs; so in photography

⁴ Ibid, 7.

⁵ A good account of publishing control directly connected to emerging technologies, especially online can be found in, Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in the Connected World* (New York: Vintage Books, 2002), 111-112.

a tendency that is vital to new media and Remix at the beginning of the twenty-first century manifested itself as a mass phenomenon: the acknowledgment of the user to complete the work, or do the actual labor.

Sampling, then, has its seeds in 1839, as Lev Manovich argues when he cites a Parisian who commented on what followed after Louis Daguerre's famous presentation of his daguerreotype: "A few days later, 'opticians' shops were crowded with amateurs panting for daguerreotype apparatus, and everywhere cameras were trained on buildings. Everyone wanted to record the view from his window, and he was lucky who at first trial got a silhouette of roof tops against the sky."⁶ And this frenzy is a natural element of new media culture, taken as a given.

To fully grasp the importance of sampling in modernism, however, we must also consider how recording in music evolved to incorporate sampling as a vital part of music production. At the time of this writing, sampling is commonly understood to imply copying in material form, not by capturing from the real world, but from a pre-existing recording. This principle of sampling, which became popular in the 1970s with DJ producers of disco and eventually hip-hop, is a meta-activity that follows early forms of sound capturing. Early sound recordings, with a similar approach as photography's, were also tools used to copy (sample) from the world. Thomas Edison developed the phonograph in 1877 to record sound (Figure 1.2); his interest was not the recording of music but of voices.⁷ It was not until much later, around 1910, that the phonograph, along with the gramophone, would be commonly used not to record but to listen to music. Edison did not pursue recording music as he was interested in providing a dictating service for corporations. (This pursuit was not successful.)⁸ Thus, the phonograph, like the photograph was developed with the same purpose: to capture (sample) a moment and relive it later. This is particularly true from Edison's point of view. It must be noted here that while the kind of sampling taking place in photography can be argued to be technically a different process from capturing sound, from a cultural perspective it was collapsed in film by Edison's conceptual approach. He deliberately thought of capturing images equivalent to capturing sound. He theorized that "photographic emulsion could attach images to a cylinder, and they could be played back like a phonograph."⁹ And he openly considered the Kinetoscope a visual phonograph. Here we begin to see an intimate rela-

⁶ Cited by Lev Manovich, *The Language of New Media* (Cambridge, Massachusetts: 2001), 21.

⁷ Theresa M. Collins, Lisa Gitelman, and Gregory Jankunis, "Invention of the Phonograph, as recalled by Edison's Assistant, by Charles Batchelor," *Thomas Edison and Modern America: A Brief History with Documents* (New York: Bedford/St. Martin's, 2002), 64.

⁸ Ibid, 23.

⁹ Ibid, 20.

tionship between image and sound; however, the process of capturing would not become the same for them until the introduction of the computer, a machine that treats both image and sound the same: as binary data to be manipulated at will by the user. While early recording technology carried this trace, people would not think of image and sound as equivalent forms of recording; further, these two forms would not be called “sampling” at this time, because the notion of sampling as it is used during the first decade of the twenty-first century was not conceivable—in part because the conception of appropriating recorded material would not take place until the beginning of the twentieth century.

Technically speaking, when considering the basic definition of sampling, this is what takes place in this first stage; early technology enabled people to sample from the world and eventually from sampled material. In current times the latter becomes a default state with the computer: to sample means to copy/cut & paste. Most importantly, this action is the same for image, sound and text. In this sense, the computer is a sampling machine: from a wide cultural point of view, the ultimate remixing tool. The reason for this has to do with two levels of operation in culture, which I define as The Framework of Culture. The first takes place when an element is introduced in culture, and the second when once that element has attained cultural value it is re-evaluated, either by social commentary, appropriation, or sampling.¹⁰ These strategies are vital to the practice of Remix as the act of remixing takes place in the latter stage with the combination of formal and ideological strategies. Both the photograph and the phonograph functioned at the first stage, setting the ground for appropriation and sampling in modernism commonly understood mainly as forms of recording primary sources. Photography and sound recording would take full effect as a meta-action in postmodernism, to become friendly to the simulacrum, once enough material had been gathered to be remixed.

¹⁰ This statement does not imply that the content is some how “new” along the lines of something completely “original,” but rather that the material introduced is different enough for people to evaluate how it redefines conventions previously established. Once such material is assimilated it can enter the second layer of the framework of culture. Some obvious examples are the photograph, the phonograph, the computer and the Internet, which are all innovative re-combinations of technology developed by many people, not a sole individual.



Figure 1.1 Joseph Nicéphore Niépce, *View from the Window at Le Gras*, Eight hour exposure. Heliograph. Taken in 1826 or 1827, in Saint-Loup-de-Varenes.



Figure 1.2 Thomas Edison and his early phonograph. Circa 1877, Brady-Handy Photograph Collection (Library of Congress) Author: Levin C. Handy.

THE THREE CHRONOLOGICAL STAGES OF MECHANICAL REPRODUCTION

Based on the material surveyed above, there are three stages of Mechanical Reproduction (Figure 1.3): the first consists of early photography, beginning around the 1830s (extended in film), and sound recording with the phonograph in the 1870s and '90s; at this stage, it is the world itself that is recorded—represented with images and sounds. The act of sampling as known today was not relevant at this stage; instead, *recording* was the word most often linked with early forms of mechanical reproduction. Once mechanical recording became conventionalized and paradigms developed, and most importantly, enough material was recorded and archived, the second stage of mechanical reproduction is found beginning in the 1920s in photo collages and photomontages, which relied mainly in cutting and pasting. This is the first stage of recycling—an early form of meta-media preceding sampling as commonly understood in new media. Social commentary dependent on the recycling of mechanically reproduced media becomes feasible in this second stage, which first manifested itself most visibly in photomontage, but became pervasive in music sampling during the 1970s, once sampling machines became readily available. In music, cutting gave way to copying. During the '70s, music sampling leaned towards leaving the original music composition intact; and with the right equipment, music samples could sound just as good as the originating source. The final stage of sampling is found in new media beginning in the 1980s—which I also refer to as the second stage of recycling. This stage privileges pre-existing material over the real world. The tendency to look for already recorded material prevalent in early music remixes, which became the staple practice in hip-hop music, is now a shared tendency commonly found in new media when people opt to search for information in databases—whether it be text, image, or video. In this case, both of the previous stages are combined at a meta-level, thus giving the user the option to cut or copy based on aesthetics, rather than limitations of media. This is not to say that new media does not have limitations, but rather that most people adept in emerging technologies could concentrate with greater ease in developing their ideas with efficient forms of recording and sampling that simulated (to a believable degree) previously existing media.



Figure 1.3

Let us examine each of these three stages in more detail. To begin, photography in its initial stage samples, in the strict sense of the definition, by capturing a moment in time that can be reproduced as a print, assuming that the negative is well taken care of, which is most obvious in one of the first recorded images by Joseph Nicéphore Niépce, *View from the Window*

at *Le Gras*, circa 1826, (Figure 1.1) a heliograph which took several hours to achieve.¹¹ The capture of time would be pushed by film language by creating a series of images that when played in sequence gave a sense of actual time lapse. During the second stage of mechanical representation, cutting from images to create other images was explored as a legitimate aesthetic. A prime example of this stage is the work of Hannah Höch, who sampled by cutting directly from magazines and other publications. John Heartfield is another artist who sampled by cutting to then create photographs (better known as photomontages) to be published in magazines. While Höch may have a closer relationship to the notion of sampling by taking actual pieces from a bigger whole, Heartfield and his contemporaries offer a transitional moment; they set the ground for the kind of recycling found in new media that privileges copying not cutting. Heartfield explored copying or sampling as defined by the first stage found in photography when he produced cut and paste compositions to be photographed to then find their final form in the print Magazine *AIZ*, as criticism on the politics of Adolf Hitler.¹² What is crucial in Heartfield and his contemporaries practicing photomontage is that he developed work specifically for reproduction; they explored the visual language that would become fundamental during the early '90s for the software application Photoshop, where cut/copy & paste is essential to develop basic new media imagery. This is the default mode of photographic reproduction for people who have access to computer technology at a professional or amateur level. Photoshop, then, marks the third stage of mechanical reproduction, which I also refer to as the stage of new media, and the second stage of recycling. This stage was marked in music a decade earlier, when DJs turned producers during the late 1970s and early '80s were able to take bits of different songs with sampling machines to create their own compositions. This tendency now is part of remix culture.

Now that the three stages of mechanical reproduction have been defined and contextualized theoretically, it is time to look at how these stages are historically linked to four more stages that specifically support the development of Remix in postmodernism and our current state of new media production.

¹¹ Mary Warner Marien, "The Invention of Photographies," *History of Photography: A Cultural History* (New York: Prentice Hall, 2006), 9.

¹² David Evans, "From Idea to Page: The Making of Heartfield's Photomontages," *John Heartfield: AIZ* (New York: Kent Gallery, Inc, 1992), 20-29.

THE FOUR STAGES OF REMIX

The four stages of Remix overlap the second and third stage of mechanical reproduction (Figure 1.4). As noted, the third stage of mechanical reproduction begins in visual culture when Photoshop was introduced; however, as also noted, this shift happened in music a few years earlier during the 1980s with the introduction of sampling machines used to experiment with different forms of remix. While this is taking place, the computer was introduced to the mass public during the first years of the 1980s. IBM's personal computer 5150 was officially released in 1980. And Apple's Lisa was released in 1983.¹³ In this way, the aesthetics of constantly taking bits and pieces of content begins to be shared across media, and is not limited to music. Here we find a parallel in the aesthetics of sampling, which would be combined in the late '90s in Remix. However, it is the concept of remixing in music, as we will see that became appropriated to encapsulate the tendency to recycle material in all media.

The first stage of Remix took place in Jamaica with the rise of dub, during the late 1960s and '70s; that is, at the end of the second stage of mechanical reproduction. The second stage of Remix took place during the 1970s and '80s when principles of remixing are defined in New York City.

The third stage takes place, during the mid to late '80s and '90s, when Remix becomes a style, and therefore commodified as a popular form used to increase music sales in the United States, at which time a new generation of music producers became active in England as well as other parts of Europe and the world. This is also the time when the computer becomes more popular and the aesthetics of new media are implemented with the introduction of Photoshop. While the United States began to sell music clearly informed by remix aesthetics as mainstream commodities, people in Europe developed a subculture based on the principles of Remix defined during the 1970s and early '80s. The North American styles of Detroit Techno, Chicago House, New York Garage, along with the rise of mainstream hip-hop, became the points of reference for subcultures to develop their own material. The result was music genres such as trip-hop, down-tempo, breakbeat and jungle, which were perfected throughout Europe, but most clearly defined in England.

¹³ Paul Freiburger & Michael Swaine, *Fire in the Valley* (New York: McGraw Hill, 2000), 329 – 354.



Diagram by Eduardo Navas, <http://remixtheory.net>
Figure 1.4

The fourth stage of Remix takes place when the act of remixing becomes a concept appropriated for things not always considered “remixes.” Remix becomes an aesthetic to validate activities based on appropriation. This stage takes place during the late ‘90s, and becomes most pronounced with the concept of remix culture, as defined by Lawrence Lessig. The popular online community resource ccMixter is perhaps the most obvious example of how the principles of remixing, explored in the previous stages inform online collaboration.¹⁴ ccMixter encourages its members to share music tracks and remix them, as long as participants respect the copyright licenses which have been adopted by the original track producers. But the less obvious examples would fall in the diverse uses of Creative Commons licenses which are designed to cover all forms of intellectual property production, including, image, music, and text.¹⁵ Here, Remix is in place, and we are currently living through the fourth stage.

ANALYTICS: FROM PHOTOGRAPHY TO REMIX CULTURE

The three stages of mechanical reproduction and the four stages of Remix become evident in the use of key terms in print between the 1800s and 2000s. The visualizations that follow demonstrate the rise of sampling moving towards Remix as discussed throughout this chapter. Note that the queries are limited to books in English.

THE CULTURAL UNDERSTANDING OF PHOTOGRAPHY AND FILM IN PRINT

The following graphs demonstrate how the words “photography” and “film” were popular in print publications between 1800 and 2008.



¹⁴ ccMixter, <http://ccmixter.org/>

¹⁵ Creative Commons, <http://creativecommons.org/>

Figure 1.5 The usage of the term “photography” increases dramatically beginning in the 1840s.¹⁶ This is shortly after Louis Daguerre’s innovations. This corresponds with the First stage of mechanical reproduction.

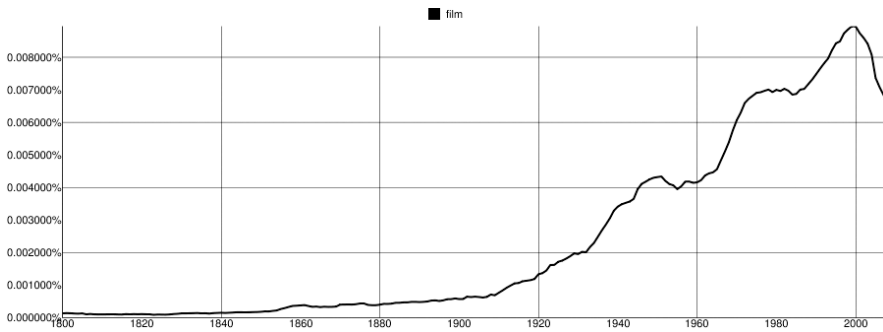


Figure 1.6 The term “film” appeared in print prior to the 1840s.¹⁷ This, however, was likely in relation to other denotations of the term. The term’s use increases around the 1860s. This falls in line with the innovations by Thomas Edison and his contemporaries. The usage of photography and film in print corresponds with the first stage of mechanical reproduction.

THE CULTURAL UNDERSTANDING OF RECORDING AND SAMPLING IN PRINT

The following graphs demonstrate how the words “recording” and “sampling” were popular in print publications between 1800 and 2008.

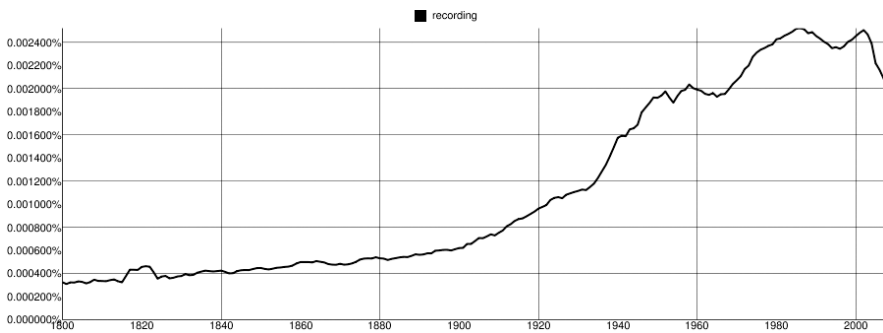


Figure 1.7 The usage of the term “recording” increases from left to right, moving towards contemporary times.¹⁸

¹⁶ Google nGram: http://books.google.com/ngrams/graph?content=photography&year_start=1800&year_end=2008&corpus=0&smoothing=3

¹⁷ Google nGram: http://books.google.com/ngrams/graph?content=film&year_start=1800&year_end=2008&corpus=0&smoothing=3

¹⁸ Google nGram: http://books.google.com/ngrams/graph?content=recording&year_start=1800&year_end=2008&corpus=0&smoothing=3

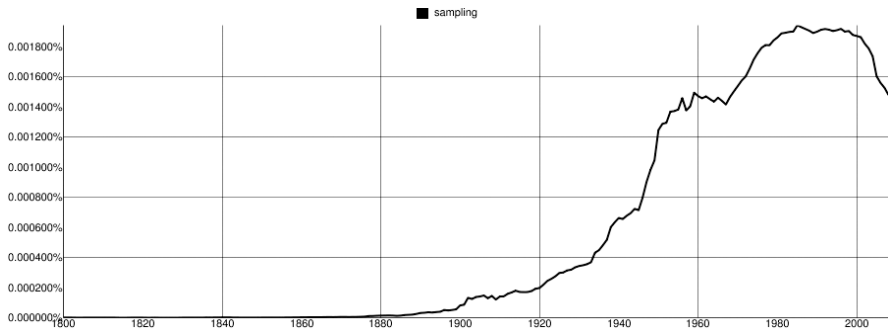


Figure 1.8 The usage of the term “sampling” is basically non-existent in print until the beginning of the 1880s. This corresponds with the relation of the concept of sampling with the archiving of mechanically reproduced material from which to sample in order to create collages and photomontages during the second stage of mechanical reproduction.¹⁹

THE CULTURAL UNDERSTANDING OF COLLAGE AND PHOTOMONTAGE IN PRINT

The following graphs demonstrate how the words “collage” and “photomontage” were popular in print publications between 1800 and 2008.

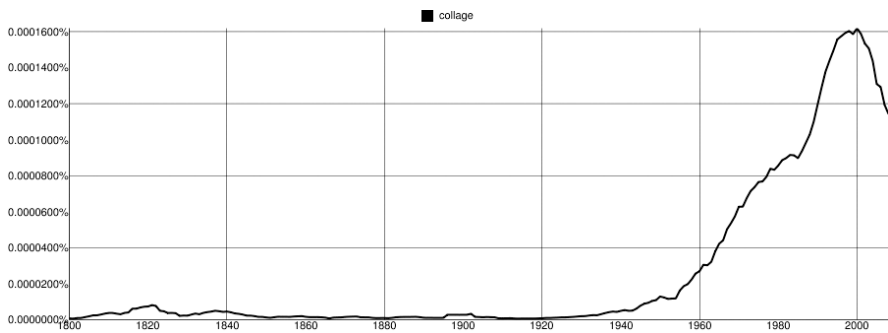


Figure 1.9 The term collage did not increase in usage until around the 1920s. This corresponds with the second stage of mechanical reproduction.²⁰

¹⁹ Google nGram: http://books.google.com/ngrams/graph?content=sampling&year_start=1800&year_end=2008&corpus=0&smoothing=3

²⁰ Google nGram, http://books.google.com/ngrams/graph?content=collage&year_start=1800&year_end=2008&corpus=0&smoothing=3

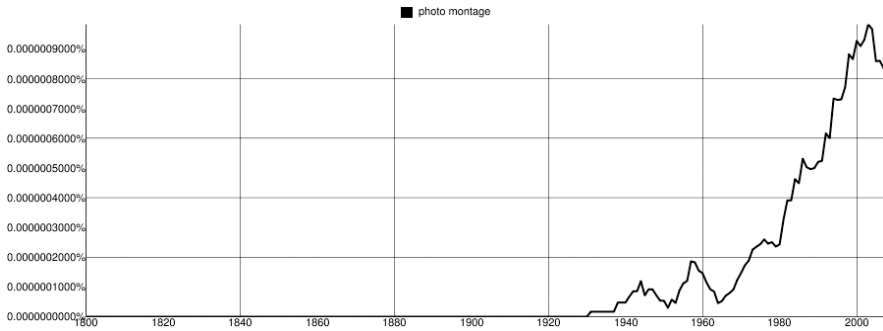


Figure 1.10 The term “photo montage” was not in print until about the 1930s.²¹ Performing the search for “photomontage” results in a slightly different pattern, which still corresponds with the rise of the concept of photomontage in culture during the 1930s. I searched for two words, as opposed to one because this would be the way the concept was initially printed. The popularity of photomontage in print corresponds with the second stage of mechanical reproduction.

THE CULTURAL UNDERSTANDING OF MUSIC RECORDING AND MUSIC SAMPLING IN PRINT

The following graphs demonstrate how the words “music recording” and “music sampling” were popular in print publications between 1800 and 2008.

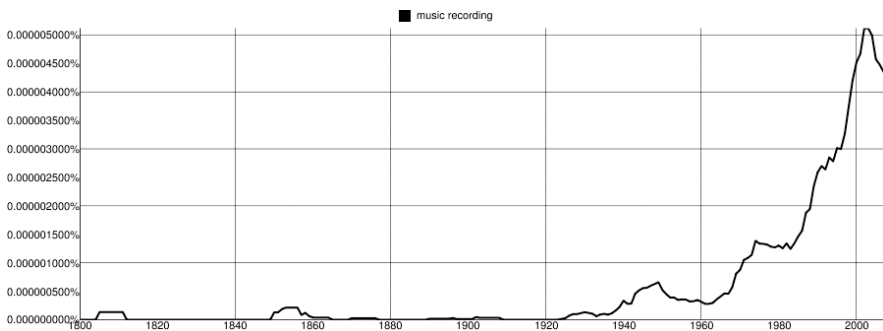


Figure 1.11 The term “music recording” does not increase in popular usage until the 1930s, and takes a major rise in the late ‘40s, and then again in the ‘80s.²² This corresponds with the second and third stage of mechanical reproduction, and the first stage of Remix.

²¹ Google nGram, http://books.google.com/ngrams/graph?content=photo+montage&year_start=1800&year_end=2008&corpus=0&smoothing=3

²² Google nGram: http://books.google.com/ngrams/graph?content=music+recording&year_start=1800&year_end=2008&corpus=0&smoothing=3

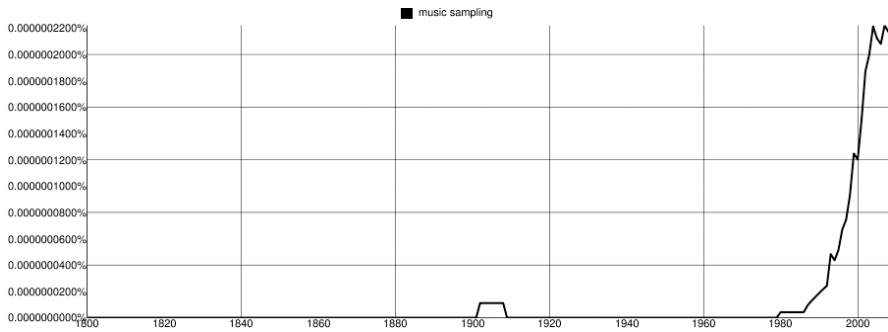


Figure 1.12 Music sampling, although it had an apparent relevance at the beginning of the 1900s, is not consistently popular until the beginning of the 1980s.²³ This corresponds with the rise of remixing in music within the first and second stages of Remix, eventually leading to the concept of remix culture.

THE CULTURAL UNDERSTANDING OF REMIX AND REMIX CULTURE IN PRINT

The following graphs demonstrate how the words “remix” and “remix culture” were popular in print publications between 1800 and 2008.

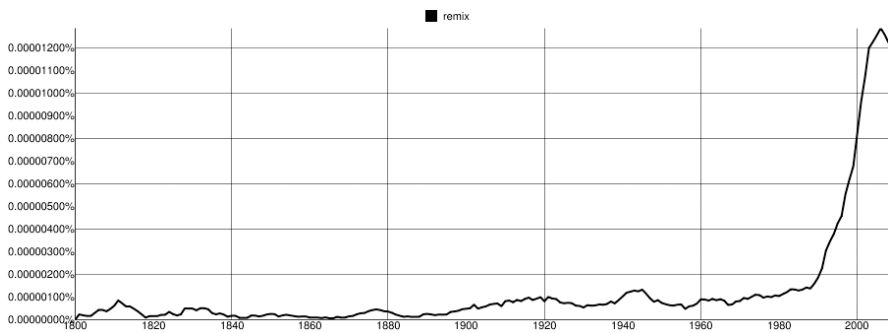


Figure 1.13 This graph demonstrates that the term “remix” was in use during the 1800s; however, it becomes evident that the term’s popularity increased exponentially during the 1980s, which is also the time when dance club and hip-hop remixes became popular.²⁴ This corresponds with the first and second stages of Remix.

²³ Google nGram: http://books.google.com/ngrams/graph?content=music+sampling&year_start=1800&year_end=2008&corpus=0&smoothing=3

²⁴ Google nGram: http://books.google.com/ngrams/graph?content=remix&year_start=1800&year_end=2008&corpus=0&smoothing=3

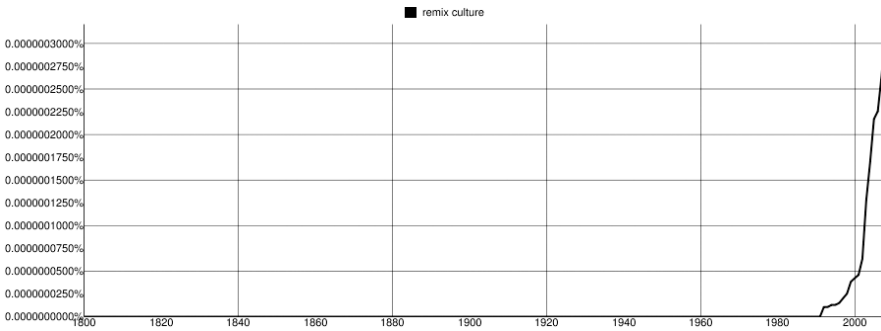


Figure 1.14 The term “remix culture” was not in print prior to the 1990s, when it began to be used to promote changes to copyright law by Lawrence Lessig and his contemporaries.²⁵ This corresponds with the third and fourth stages of Remix.

THE REGRESSIVE IDEOLOGY OF REMIX

A theoretical evaluation of the fourth stage of Remix is necessary to understand better Remix’s development. The notion of time that was explored in music sampling during the 1970s became proliferated throughout postmodern culture during the ‘80s. In the ‘90s—and certainly in the early 2000s—the notion of sampling became the intricate and undeniable default form of consumption available to average listeners who normally would not be considered content producers; users who, from time to time, may want “to play DJ” by selecting music in their ipods, or “remixers” by reblogging on subjects of interest. Inevitably, because of the state of specialization which makes modernism and postmodernism possible, access to sampling and ability to remix (of appropriating material which carries cultural value and tends to reference itself) falls into the danger of subverting history; and younger generations who may not know where the sample came from may treat remixed material as original. This is key to sampling in media at large, and this was the great fear of critical theorist Theodor Adorno when he discusses the regressive listener in mass culture—the individual who the industry would gladly keep at a juvenile stage, and can tell what to consume.²⁶

An example of this occurrence is the hip-hop song “Rappers Delight” by the Sugarhill Gang, which during the early ‘80s was a popular hit, riding on the coat tails of hip-hop subculture. Early electrofunk artists, like Grandmaster Flash dismissed the song as a cooption by the culture indus-

²⁵ Google nGram: http://books.google.com/ngrams/graph?content=remix+culture&year_start=1800&year_end=2008&corpus=0&smoothing=3

²⁶ Theodore Adorno, *The Culture Industry* (London, New York: Routledge, 1991), 50 - 52

try of the thriving developments in the Bronx.²⁷ Some people thought of it as the first rap song, but it was not; and further, it sampled from a song titled “Good Times” by Chic. The producers did not acknowledge the sample. Here we note how historical citation is by default subverted in Remix. People were expected to recognize the “Good Times” baseline loop while the MCs rapped on top. Giving credit and also royalties to music artists whose samples were used would become a major issue in copyright law in the 80s.²⁸ As can be noted with “Rappers Delight,” Remix, even when used in regressive fashion, with a short history span, still demands that people recognize some trace of history. Thus the power of sampling is always based on a diversion, one that can be presented, as a state of repressed desire that is completely mediated, showing no solution except to point to itself.²⁹ Part of the interest in sampling within the culture industry, then, is in taking a bit of music that the listener will recognize, who will in turn most likely become excited when she recognizes the sample. At this point, sampling manifests itself as loops that can potentially go on forever. It begins to expose the basic aesthetic of loops as vehicles of ideology in consumer culture. Repetition, as defined by political economist Jacques Attali, subverts representation, making the recording the primary form of experience in everyday life; it becomes part of reality at this moment.³⁰ And with this form of mechanical repetition, with loops, time gives way to space, because in modularity, time is not marked linearly, but circularly, for the sake of consumption and regression. One can go back to a favorite recording to experience it over and over again, thus making it the main point of reference in one’s understanding of the world.

This is also the power of the photograph as defined by Roland Barthes. For him, the punctum is a static form of repetition; it captures, freezes a moment in time that the viewer can play over and over in his/her mind, similarly to a music recording. For Barthes the punctum is a sublime experience with which the viewer tries to come to terms by negotiating space and time. Barthes argued that an acknowledgment of a person’s inevitable death is pronounced:

This punctum, more or less blurred beneath the abundance and the disparity of contemporary photographs, is vividly legible in historical photographs: there is always a

²⁷ Ulf Poschardt, *DJ Culture* (London: Quartet Books, 1998), 193-194.

²⁸ Bill Brewster and Frank Broughton, *Last Night a DJ save my Life* (New York: Grover Press, 2000), 244-246.

²⁹ This is an observation made on postmodern culture by Fredric Jameson. See, Fredric Jameson, *Postmodernism or, The Logic of Late Capitalism* (Durham: Duke University Press, 1991), 51-54. Also, see my analysis of his work in chapter three, 86-88.

³⁰ Attali, 7-22, see introduction for full citation, 5.

defeat of Time in them: that is dead and that is going to die. [...] At the limit, there is no need to represent a body in order for me to experience this vertigo of time defeated.³¹

For Barthes the ability of photography to freeze a moment in time was not only a pronouncement of death in the future, but also the capture of death within the image itself. It is because of the sense of “cutting” that was understood when people saw an apparently accurate reproduction of reality why the punctum was at play. It appeared as though a “sample” from real life had been stolen. The photograph records time, turning it into a fragment that spans across space: a material record of a person’s mortality. This disturbing element of photography, which is crucial as an early form of recording, culminated in the power of film—in which the punctum noted by Barthes is extended overtly pronouncing space over time.



Figure 1.15 View of New York, New York Casino, Las Vegas, Summer 2008

During the first decade of the twenty-first century, stills and moving images, informed by photo and film language, are used to advertise all sorts of commercial brands. Images are displayed on billboards found all over New York City and Los Angeles, Las Vegas, and Tokyo to name but a few

³¹ Roland Barthes, *Camera Lucida* Trans. Richard Howard, (New York: Hill and Wang, 1981), 96.

major international centers. In Las Vegas, as a concrete example, image and sound are strategically repeated incessantly to create a seamless spectacular loop. In this city with no clocks anywhere to be found, time is suspended—night and day become one timeless loop, encouraging people to stay up as much as possible and spend all of their time at the gambling tables. Kitsch art exhibitions and collections are promoted as just another major spectacle on the strip; nightly performances by cover bands of The Beatles, along with Elvis Presley impersonators, are naturally juxtaposed with actual performers, including Cher, Prince, and Wayne Newton—as if they belong to the same time period. In Las Vegas time stands still in the name of the spectacle. With the efficiency in production and simulation that mechanical reproduction has reached, the concept of time, and with it, history, give way to privileging space—simulacrum in space. Thus, Las Vegas specializes in presenting an ever-growing simulacrum of the world. One no longer needs to go to Paris to experience the Eiffel tower, but to Las Vegas to experience the pure myth of Parisian culture. What Las Vegas offers is a culture where the copy is revered for being a fake. And that fakeness attains authenticity based on the honest act of trying to be a parody of, and admirable reference to the original. Vegas is the ultimate experiment in appropriation—where critical distance is absent, where time is dismissed and space is presented as something modular, which can be replicated as simulacra proper, a never ending stage of make believe.³² The punctum is taken to its limit.

The ideology that makes Las Vegas powerful has a reciprocal relationship with new media technology: once the computer database entered everyday reality, linear representation gave way to modular representation. This consists of privileging the paradigm over syntagm; meaning that it is not the story but the parts of the story that become emphasized as forms of interest. Database logic consists of making information access the goal in cultural production,³³ and narrative is subverted by the drive for efficient information access that need not have a beginning, middle, or end to be of interest to the user.

Music sampling was a transitional period toward privileging the fragment over the whole; and it is no accident that sampling in music became popular during the postmodern period. Fragments became the subject of cultural tension. While it was the medium of photography that came to define our relationship of the world through *recorded* (sampled) representations, this tendency would take its first major shift towards what is known

³² My concept of the simulacrum is informed by Jean Baudrillard's theory on simulacra. See, Jean Baudrillard, "The Precession of Simulacra," *Simulacra and Simulation* (Ann Arbor: University of Michigan Press, 2007), 1-43.

³³ Manovich, 218 – 221.

today as modularity not in visual culture but in music culture, in the explorations of composers, like Stockhausen, who with tape loops aesthetically alluded to what the computer actually does today. Tape loops run repeatedly until they are turned off, or fall apart from wear and tear; similarly, computers check themselves in loops in fractions of seconds to decide what to do at all times.³⁴ Looping, or modular repetition is what defines media culture, and Remix as a form of discourse; in this sense, Las Vegas is just one example of how this understanding of repetition is accepted by the average consumer in the form of spectacle: images repeat with no beginning or end. Looping in culture at large functions similarly to the punctum in photography as noticed by Barthes: the loop repeats a moment in time, just like a photograph presents a moment in time. Repetition, the stability and negation of the passing of time towards death, is found in consumer culture, not as a conscious recognition of history, but as superfluous and indifferent fragments of apparently unrelated events.

Hence, the principles of appropriation privileged in visual culture at large during the first decade of the twenty-first century started in early photography and printed media, moving on to sampling in music, finding their way back into culture once the computer became a common item in people's homes. And today, principles of Remix in new media blur the line between high and low culture (the potential that photography initially offered), allowing average people and the elite to produce work with the very same tools. Choice and intention, then, become the crucial defining elements in new media; digital tools can be used to support all types of agendas—which fall between commerce and culture.

³⁴ Rob Young, "Pioneers. Roll Tape: Pioneer Spirits in Musique Concrete," *Modulations*, ed. Peter Shapiro (New York: Caipirinha Productions and D.A.P., 2000), 8 – 20.