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Records as records: excavating the DJ's sonic archive

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ABSTRACT

This paper uses four vinyl record collections to identify and infer the praxis of DJs and the evidential value of their sonic archives. The work positions the DJs' vinyl records as a document of dance music culture while defining the DJ as the arbiter and transmitter of that record. The work adopts an archaeological perspective, questioning how to understand a DJ's praxis from the material culture of their vinyl records, viewing these records as artefacts which together form an assemblage warranting 'excavation,' analysis and curation. A framework of evidence is proposed and applied to the four vinyl collections, focusing on what can be learnt from such close archaeological scrutiny. The work concludes with a discussion of themes suggested by the analysis and proposes a proactive approach to planning for the preservation of DJ archives.

KEYWORDS

DJ; record collection; electronic dance music (EDM); popular music history; heritage

Introduction

The DJ is a creator, arbiter and transmitter of sonic archives. Some DJs are composers and producers while others are 'selectors,'[1] curating distinctive sets from an almost infinite number of sonic works that have accumulated since the advent of recorded music in around 1860.[2] Much of what most contemporary DJs construct comprises a non-tactile archive of digital sounds, yet a material or tangible record (typically in the form of vinyl records and tapes) has persisted into the digital era, the physical form often carrying a certain prestige, being an overt link to dance music's material culture, history and heritage. Now, as the first generation of original DJs pass away through age or ill-health, their vinyl collections create curatorial challenges. It is these challenges, concerning for example curation and the archive, the cultural value of vinyl collections, and their conservation, that form the subject of this paper.

As Poschardt has stated, 'the DJs' record box is full of history, stored on vinyl'.[3] Beyond simply recorded audio, vinyl records are also documents of culture, particularly those cultures that revolve around records. They express or 'spin a variety of local–global stories worth re-telling and preserving.'[4] Poschardt succinctly summarized the musical materials or vinyl of dance music culture as its 'sonic archive.'[5] They document what happens in the dark.[6] Most importantly, the vinyl records used within dance music culture are the expression of both the activity and the focus of the

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culture. It is the stimulus which inspires dancing, and it is how individuals garner their cultural capital. Without wishing to appear tautologous, dance music is *about* dance music.

The paper brings together case studies representative of the differing states in which DJ record collections exist and are left behind; ranging from those which are catalogued, curated and recorded for posterity, to others left to splinter and atomize over years. These collections have a research value on three levels. First, that the individual items that comprise these archives (i.e. the records) are of interest in offering specific insights as to the function and use of the collection — how were the records used and treated by their owners? Second, taken as assemblages, each collection has intrinsic and interpretable value for the communities with which they are associated and for the broader understanding of those musical cultures. Finally, the 'meta-archive' is also worthy of exploration here; the record boxes, shelves, the order of records on those shelves etc. all provide clues as to the curation and management of these assemblages during their use-lives.

Through this study, and by exploring the research value of DJs' vinyl collections in this way, it is hoped to raise awareness of the challenges around and the importance of studying these collections as part of a broader socio-musicological heritage discourse. To make the project more manageable, and to draw together some well-known examples, the focus is on studying significant figures in dance music history and their collections in their current states. By conducting a comparative analysis of the evidence that is represented within these archives, two key outcomes are offered. Firstly, to actively identify types of evidence existing within these collections, and secondly, to present a series of considerations around preservation and curation of the DJs' sonic archive.

Material culture and the heritage of music

The archaeological parallels (both through the metaphor of excavation and the idea of records as artefacts and record collections as assemblages), and the framing of vinyl collections as a form of cultural heritage worthy of record, form the focus of this paper. In presenting an argument for recognizing these collections as important archives, a material turn within the humanities and social sciences is acknowledged, taking the view that material culture, and specifically in this case vinyl records, have agency;[7] that they are not inert, but have properties and affordances that powerfully shape human subjectivity and activity.[8]

With that in mind, English Heritage's landmark *Conservation Principles*[9] guidance document has relevance here, and notably its definition of evidential value. Two aspects of this definition have particular resonance. Firstly that:

> Physical remains of past human activity are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them. These remains are part of a record of the past that begins with traces of early humans and continues to be created and destroyed. Their evidential value is proportionate to their potential to contribute to people's understanding of the past.

In other words, the more representative remains (such as artefacts) are of a community, the more value they will hold as evidence of that community. This statement also relates people and culture with places — the people in this case being DJs and audiences, the places being the clubs where music and memories are made. Secondly, that:

> In the absence of written records, the material record . . . provides the only source of evidence about the distant past. Age is therefore a strong indicator of relative evidential value, but is not paramount, since the material record is *the primary source of evidence about poorly documented aspects of any period*.[10]

Thus, a community with few formal written records will rely more heavily on material evidence to create a record of its existence and character. Vulnerable, minority, underprivileged and marginalized communities are likely to fall into this category.

With this evidential value of record collections in mind,[11] the research is positioned within two related and overlapping fields of critical investigation: contemporary archaeology and heritage studies. Contemporary archaeology, simply, is both the application of archaeological methods and perspectives to the contemporary world, as well as a framework for critically examining the contemporary role of archaeology in society: it refers both to archaeology *in* the present, and archaeology *of* the present.[12] DJ record collections illustrate both aspects of this field of study. DJs create archives for which curation is neither centralized nor (usually) institutionalized. Their collections each form a palimpsest in which past and present appear together on the contemporary acoustic surface: the sonic landscape forming part of a sonic archive which has accumulated to exist in the present now and for the future. Often past and present are literally mixed together in this context, either by the producer of records or by the DJ during live performance. These assemblages thus become an indicator of contemporary social values, cultural trends, economic and political movements, activism and energy, co-existing at a particular point in time. In the same way as a Palaeolithic hand-axe yields information about early humans, including their dexterity and handedness, technologies and subsistence, so vinyl records reveal comparable insights into the performative, aesthetic, and technological considerations that facilitate 'dancing to discs'[13] and the judgements made by DJs as practitioners concerning curation, presentation and reification of musical materials as cultural referents.

Critical heritage studies involve contemporary thinking on how the material world responds to diversity and uncertainty within the context of its continual state of transformation, of becoming. Thus, while the DJs whose vinyl collections are discussed below are icons of their respective scenes, and their collections are therefore, in a sense, iconic, these are also collections that constitute everyday lived experiences, and the experiences often of members of minority ethnic groups whose heritage often goes forgotten, ignored or simply unrecognized. The heritage in this case includes: the DJs' back rooms and studios, where music is made and mixed and where performances and sets are rehearsed; the record shops where they buy and sell their vinyl; and their performance spaces. The heritage also includes the vinyl artefacts often grouped together in assemblages. For these reasons, the term 'archive' is used deliberately, not least for the obvious parallels with libraries and collections of books and documents that outlive their owners, requiring decisions about long-term preservation within a context of increased profusion.[14]

Finally, this study follows significant previous research into popular music and cultural heritage. For example, building on earlier research,[15] recent studies have focused particularly on memories and the histories of popular music to embrace its multiple pasts,[16] a theme developed and expanded upon in Istvandity et al.[17] exploring the transformation of popular music into heritage. Baker hosted an edited collection that drew attention to preservation and the archive while Lashua et al. emphasize popular music and the city.[18] As with heritage studies more broadly, however, underlying all of these diverse and multiple strands is the principle that music and heritage should always concern the relationships between people and place as opposed to only the places in and of themselves.[19] Through the investigation, that theme is pursued, positioning record collections as assemblages at the dynamic interface between people and their landscape. By metaphorically and even sometimes literally excavating vinyl assemblages,[20] archives are created which document these relationships in unique dynamic ways: the record as record.

Records and the DJ

The phonograph might better be named the 'memory machine.'[21] Contrary to how they are typically considered, records are not a fixed text.[22] They echo and reverberate forward in time, influencing other records that come after; the genesis of a culture's musical canon could be said to stem from these echoes and resonances. The notion of the record as palimpsest has existed since the earliest days of recording when wax cylinders were reused and written over.[23] For both dance music and hip hop, records are routinely sampled into a new form, representing both old and new. Dance music thrives on intertextuality and self-reference,[24] creating new material from older extant recordings.[25] The 'sonic legacy'[26] of dance music is recycled back into that culture through techniques such as sampling and remixing. The technologies of dance music are directly designed to simultaneously preserve, interpret, and recontextualize the materials of the culture.[27] Work has been performed that presents a possible typology of such sampled materials.[28] However, the performance or practice of DJs may represent the most contiguous and stable looping of materials back into dance music.

The term DJ, an initialism of 'disc jockey,' means very little. It does not circumscribe or delineate the role or position of the DJ in society. Neither does it describe their practice or function. It merely allows us to identify them by their primary tool, in the same way one might use the descriptor 'artilleryman.' Defining the DJ has proved a challenging endeavour for many researchers and authors. Rietveld considers the DJ to be variously 'party leader, sonic entertainer, auditory artist, music programmer, record mixer, beatmatcher, cultural masher, music producer, creative music archivist, record collector … cyborgian shaman, the embodiment of studio-generated music.'[29] Others have suggested comparable terms: 'part shaman, part technician, part collector, part selector, and part musical evangelist,'[30] the evocative 'scryer,'[31] or that figurehead of modernism, the 'flâneur.'[32]

However, arguably the more accurate descriptor is that of the recently rehabilitated figure of the 'selector'.[33] Busby connects the term to its roots in Jamaican dance music of the 1950's, with the term referring to 'curating a selection of songs back-to-back and creating the illusion of non-stop music,' and refers to the selector DJ as the 'artist … putting the time and effort into 'selecting''.[34] The term 'selector' allows the artistry of the DJ to be primarily concerned with the selection or arbitration of discs to motivate an

audience. Such considerations supersede the technicalities of beatmatching, mixing, and the raft of technical skills often cited as part of the DJ's practice. As such, both DJs and their records occupy an unusual position; they are at once evidence of a culture in action, and the living sonic archive of that same culture.[35]

Keeping a record: Why vinyl records are worth conserving

Four reasons can be presented for conserving record collections. Firstly, if a DJ's praxis concerns the presentation and interpretation of texts/records, how those texts are transmitted to an audience, how they are framed, grouped together, merged and distorted can be re-engineered or rediscovered. To use a somewhat religious metaphor, the DJ is a pastor or interpreter, defining how these texts are presented, combined, understood, even orated. A pastor's presentation style is comparable with a DJ's style of mixing or praxis, as is the way in which texts are divulged and interpreted to an audience.

Secondly, it goes to the idea of music cultures being cultures *about* music. To continue the metaphor, the DJ's record collection represents the pertinent and almost sacred texts for an entire culture, or at least *part* of the culture, given that there are multiple DJs and clubs for any scene. Yet, these collections make up the focus of the community, and their value as collections outweighs the individual value of certain records. It represents a canon in other words; a body of work that together presents the 'official' or 'authentic' nature of a field of art. To paraphrase Vince Lawrence, one might even suggest that a DJ's records are a culture's gospel.[36]

Thirdly, dance music often represents the alternative or minority in social musicking (as with punk or hip hop), although like other genres it obviously has its more pop-focused elements that have become subsumed into popular music (for example, the four-on-the-floor kick drum pattern which originated in early dance and spread to contemporary pop from the mid-late 1980s). Studying and preserving these collections therefore preserves a distinct series of sonic identities and minority cultural heritage. Analysing how these collections are presented through DJ praxis allows an understanding of how these texts might have been set out to a minority audience and can shed light on their relevance for certain communities.

Finally, there is the issue of urgency. Urgency in this context relates to the health of DJs, and the vulnerability or fragility of recordings. In recent years, the impacts of the typical DJ lifestyle have become apparent.[37] Mental and physical health issues, and drug and alcohol abuse, have become considerable factors on DJs' wellbeing. Furthermore, the advancing age of early dance music pioneers, and the deaths of many invaluable voices including David Mancuso, Francis Grasso, Ron Hardy, Richie Kaczor, etc., significantly limits the ability to examine their practice first-hand.

Owing to streaming and portable devices, recordings of DJ sets have recently become more easily created, providing both video and audio documentation to detail the selections played, the performative nuances, and even some visual evidence of the techniques in play. However, before the advent of such democratizing technologies, such documentation was considerably less frequent. Some individuals have digitized cassette or Digital Audio Tape (DAT) recordings of historical DJ sets to platforms such as Mixcloud; however, the provenance of such recordings is not typically evidenced. Garner's study of the crowdsourcing of John Peel radio recordings highlights such practices with stronger provenance than most.[38]

Surviving non-digitized recordings of live performances prior to 1987 (being the date of release for the DAT by Sony) are highly likely to have been recorded using magnetic tape technologies (reel to reel or compact cassette). At the time of writing, these tapes have passed their maximum operational life expectancy of 30 years,[39] and will likely have suffered from 'Sticky Shed Syndrome.'[40] Furthermore, most DAT recordings will be approaching or have passed their maximum life expectancy and potentially suffer from similar physical degradation. Consequently, the possibility of recovering any non-digital recordings grows increasingly slim.

Often, therefore, the only remaining tool to examine the work of early DJs is their record collection. This then raises the question of what happens when the music ends? When all that remains is the vinyl, how can the work of DJs be extrapolated? And how does the 'cultural memory'[41] of dance music reverberate through its materials?

~THE BREAKDOWN~

Records as evidence of a DJ's praxis

Uncovering or 'excavating' the work and processes of DJ's without recordings or documentation is challenging. However, as with all archaeological investigation, evidential markers exist within the material culture, particularly within the form and formulation of vinyl records, that can be interpreted to shed light on the activity of the DJ. Although the records featured in DJ performances, it is only the residue of such performances that can be observed, yet some evidential markers are considerably less transient than unrecorded live performance. In the following section, four types of evidence are discussed that may be drawn from vinyl records, and the possible inferences that can be made from such evidence. Three themes are then identified that express the value of these forms of evidence, connecting the evidence to possible interpretations.

Types of evidential value

Musical evidence

Records held within a DJs box or collection evidence the process of taste-making and suggest the level of omnivorousness[42] an individual DJ displayed. Within their collections the choices of DJs and their overall taste or aesthetic leanings concerning genre and style can be observed. Sleeves may contain data pertaining to the vinyl record within (as in the case of many so-called 'white labels,' often being test pressings and promos, distinguished by their plain white labels). The overall condition and age of the collection may evidence the provenance of its constituent parts. Finally, vinyl records will typically include etched matrix numbers or pressing plant reference numbers that provide a modicum of information concerning the history of the musical material and the history of the physical disc's creation.

Location/sequential evidence

The order and location in which records are stored may offer substantial information. Several different storage locations for records may be identified, and from the location could be inferred function or usage. Records may be held on shelves or in traditional milk crates (an object associated with significant prestige in some scenes) within a DJ's home

or studio, or haphazardly left lying around. It may be possible to identify specific spaces within a home where musicking activity occurs, or conversely it may be interwoven into the fabric of everyday life. There may also be distinct sections or locations within a home associated with personal or 'non-work' records, suggesting a differentiation between personal and professional taste. Other records may be stored away from the home in recording studios, in performance venues, or in other storage locations such as storage lockers or even garden sheds. Certain records may be kept in portable boxes, bags or crates distinct from the main body of the collection, or the entire collection may be stored in such containers. Such containers are typically used to transport selected records from the main collection for use in live performances.

Within these different spaces and storage locations, records may be ordered alphabetically, chronologically, geographically, idiosyncratically, or even (in a *High Fidelity*-inspired twist) autobiographically. Furthermore, records may be grouped by artist, year of release, by remixer, by record label, by genre, by key, by tempo, by mood, or by most recently played.[43] It is also feasible that different storage schemas can be in action across one collection.

Preference indicators

Beyond the data contained in the grooves of vinyl records, the physical artefacts may present further information. Owing in part to the nature of dance music DJ techniques (primarily beat matching and cutting), DJs may have added time-specific markers to their records. These, at their most simple, take the form of cue marks/stickers that are used to define the start of sections for beat matching. There may be additional markers concerning aesthetic judgements of the record's contents, highlighted sides or specific mixes/tracks on the record, or other written annotations concerning the music on the discs. These labels and/or marks do not have a colloquial name; here these are referred to as 'preference indicators.' It is possible that stickers, even when removed, may leave adhesive residue from which inferences can be made. Finally, sleeves may contain handwritten or printed mark-up data, although this practice is less common.

Ancillary data and other evidence

Additional written data is sometimes present within a DJ's archives. These include feedback reports from record pools (typically paper feedback forms attached to the sleeve or inside it), handwritten notes from music creators, producers and remixers or from label staff requesting playback and opinions. There may be other, less prototypical evidence that is not included in other categories, such as promotional materials, flyers, stickers, cigarette papers, membership cards, etc.

There may be many further evidentiary categories that would inform the work of DJs: choice of stylus and cartridge, technical riders, additional formats, online catalogues, etc.

What the evidence might reveal

These types of evidence that can be identified within record collections provide a temporally layered window from which their meaning can begin to be explored. From here it is possible to suggest or even reconstruct the processes, praxis, and wider contexts that surrounded the DJ at particular moments. Three primary themes are proposed

representing distinct areas of DJ praxis that the evidence described above may illuminate. The value of this evidence as it pertains to potential interpretation of activity does not represent a direct mapping of types onto themes, but rather a series of relationships that are interwoven and additive. It should be noted that these themes are indicative rather than exhaustive.

Acquisition, curation, and taste

The contents of a DJ's shelves and their record bags may be viewed collectively to make inferences about their preferred genres and most readily-played musical styles. A collection of records containing records of a certain genre, period, or style indicates the leaning of both the DJ and of the event or club at which the DJ performs. Within these cases instances may be identified where the DJ segments or groups their material into specific sections. These sections may be derived by genre, style, club, era, or other judgment. These groups, however, may likely link to specific functionality, i.e. were a DJ to fill their flight cases from one particular grouping, inferences could be made as to the DJ's plan for their set. From this, the tastes of audiences in specific venues might also be inferred.

The assembled material can be viewed either as a whole or as grouped segments, as something that holds some 'canonicity' for the DJ, the venue, the audience or even the genre if the DJ's provenance and impact is suitably wide-ranging. Sections associated with previous clubs in their career or sections that pertain to the 'classics' or 'canon' of a particular scene may reveal interesting resonances and divergences between the DJ's perspective of a scene and its accepted generalized narrative.

The presence of subjective metadata in a DJ's collection (particularly a broadly consistently applied rating system or otherwise) evidences the unseen labour that precedes live performance. The evidence of cue marks, ratings annotations and other individual marks evidences the ever-continuing curation that DJs must engage in. The process of ordering and/or sorting records is an extension of this curation, allowing DJs to quickly identify the records they desire according to their own preferred system of organization (alphabetical, genre, chunked/grouped, etc.).

The filing of receipts or other evidence with the records (flyers, pricing stickers, etc.) would offer clues as to where geographically records were purchased from, and whether any curation activity happens 'on the road' or whether such activity is limited to online or local purchasing. The inclusion of white label records or difficult-to-identify records is also possibly evidence of supporting smaller or unknown (e.g. local) artists and producers.

Performative features

DJs must display significant agility and reflexivity in their performance, responding to crowds, venues, sound systems and their own preferences instantaneously; at once defining and redefining longitudinal musical trajectories whilst simultaneously keeping one foot in the kairotic moment. The ordering of vinyl records and the positioning of records within a DJ's collection, their 'stratigraphy' in other words, may offer evidence of performance and programming.

The grouping of records may evidence individual performances, such as records remaining in flight cases/crates as opposed to a DJ's main shelves/collection. Specific cases, particularly containing records that display evidence of once being in the main collection (similar stickers or gaps on the shelves) are likely to represent recent activity. Such discrete groupings of

records offer sequential evidence. For instance, a typical technique colloquially known as 'back-filing' sees played records returned to the rear of flight cases/crates. From this can be inferred a specific sequence of records that may have been played. As with the above 'curation' theme, the tracks highlighted with a DJ's rating system are likely to be the tracks played on a specific record. This is particularly likely when the record box or bag contains several records with annotations in a particular style or mood. In addition, a trajectory can perhaps be observed in the records that were played, developing or shifting style over the course of a set. By regressing through back-filed records using the annotated tracks or preference indicators as the most likely played track, it may be possible to identify the first record played by observing a stark or unusual change between two pieces of material suitably deep into the back-filing. By looking at the front of a record case, it may be possible to identify material that had been selected but was not played. Other idiosyncratic features may also be present. For example, some DJs may place all played record sleeves with their opening at the side rather than on top to help easily identify played tracks, while the presence of duplicate records next to one another may also indicate possible techniques such as 'juggling.'[44]

There may be evidence of misfiling between two or more record sleeves, which would indicate the records were removed from their sleeves ready for playback in relatively close proximity or may indicate a momentary decision to swap out one track for another. The presence of additional metadata (beyond simple preference indicators) may also reveal extended techniques: some records may contain cue stickers that indicate specific structural elements within the music (a breakdown or an instrumental section). There may also be marks to quickly identify sections that should be looped, juggled, or in more extreme instances scratched. If these markers are present on 'battle weapons' or other 'tools' records,[45] it can be inferred that these are for particularly heavy sample usage in the form of scratches or other associated techniques.

Cultural, economic, and industry contexts

Records can be employed to map the broader contexts within which DJ praxis and activity occur. These contexts can be considered to be intra- and inter-cultural, and might include economic factors surrounding the DJ and their area of activity/scene, and possibly also production/industrial features of the scene. Given the roots of disco, and the subsequent developments in house and techno and their associated genres, in African American, Hispanic and LGBTQ+ communities, the evidence available within a DJ's archive has the potential to support and uplift the documentation surrounding these often-hidden histories.

One might judge the physical value of records at the time of purchase (provided receipt or price stickers are available) compared to their current popularity. Whilst the monetary value of the records is not indicative of broader appeal, it may indicate the desirability of certain 'rare' or 'canonical' records, or preferences for certain pressings. The price and rarity of records is also indicative of the scene in which a DJ operates, and the potential impact or legacy an individual might have cultivated during their activity.

The inclusion of ancillary evidence such as feedback cards or notes within a DJ's collection may reveal the distribution of records. The inclusion of these items may suggest that the records were not purchased, but rather the result of promotional activity. More interestingly, this may reveal the interpersonal connections operating 'behind the scenes' between producers, musicians, labels, DJs and clubs. It is possible that evidence can be identified of records that were sent to DJs in the hope that they would garner favour and/

or play on dancefloors. It is also possible that certain *ad hoc* or informal arrangements for reciprocal promotion of work might exist between several producers and DJs given the frequent intersection of both job roles in individuals.

~THE BUILD-UP~

Four DJs: a case study

Having identified the types of evidence that records and record collections might contain, the paper now switches focus onto the collections of four prominent DJs in search of these evidentiary markers. First, and by way of cultural context, a brief history of each of the DJ's careers is provided alongside the narrative of their collection and the current state of preservation and curation of each of these sonic archives. These histories also serve to demonstrate the interconnectedness of individuals and other notable figures surrounding them. These DJs have been chosen to represent a spectrum of public awareness and popularity. The evidence that can be excavated from within these collections will then be discussed.

Afrika Bambaataa[46]

Considered part of the trinity of key proponents of early hip hop,[47] with Kool Herc and Grandmaster Flash, Bambaataa hosted a series of hip hop events starting in 1977, before going on to form the cultural organization, the Universal Zulu Nation.[48] Bambaataa and the Universal Zulu Nation aimed to promote and support hip hop culture, cementing its core activities: DJ-ing, MC-ing, graffiti and breakdancing. Bambaataa also produced a series of seminal hip hop records in the 1980s including 'Looking for the Perfect Beat' and 'Planet Rock.'

Bambaataa's record collection was gifted to Cornell University's Hip Hop Collection in 2016. A grant from the National Endowment for the Humanities funded the cataloguing and digitization of the collection to 'support a growing body of international scholars and educators who study hip hop not only for its global influence on popular music, art and style, but its role in articulating social and political issues.'[49] The collection comprises between 20,000 and 30,000 records in over 500 containers.[50] It contains 'unique, hand-inscribed documentation' including manuscripts, notebooks, and other writings by the DJ. Bambaataa is the only surviving DJ examined here.

Frankie Knuckles

Frankie Knuckles' formative experiences of early New York disco culture saw him learning from both David Mancuso at *The Loft*, and as a staff member at Nicky Siano's *The Gallery*.[51] Knuckles began to DJ at the *Continental Baths* alongside Larry Levan in 1972 until its closure in 1976.[52] In 1977 Knuckles was invited to DJ at US Studio in Chicago (owned by Robert Williams); the club would later be renamed *The Warehouse*.[53] Knuckles initially played to primarily gay and African American audiences before *The Warehouse* expanded to a more mixed clientele.[54] After *The Warehouse's* closure in 1981, Knuckles proceeded to DJ at various venues with varying levels of success given the waning popularity of house music in the USA. He is often given the honorific 'Godfather of House,' although this is contested by some in favour of Ron Hardy. Knuckles passed away in 2014 from complications from diabetes.[55]

Figure 1. The shelves holding the Frankie Knuckles Archive, held at Stony Island Arts Bank.

Although no agreement was made prior to his death, Randy Crumpton (the attorney responsible for Knuckles' estate) and others arranged for his collection of 5000 records to be stored and curated in the Stony Island Arts Bank.[56] The archive is stored on shelves that can be accessed by the public on request (see Figure 1). According to staff at Stony Island Arts Bank, a digital catalogue of the material exists. The collection was visited by LM as part of this research on 15 November 2016.

Larry Levan

After witnessing David Mancuso's approach to DJ-ing at *The Loft*, Larry Levan's DJ skills were honed at the *Continental Baths* alongside Frankie Knuckles.[57] After the eventual bankruptcy of the *Continental Baths*, Levan eventually found fame DJ-ing at Michael Brody's *Paradise Garage* nightclub.[58] Levan was instrumental in the design of the club and sound system, in conjunction with Alex Rosner who had designed Mancuso's sound system for *The Loft*.[59] Levan's style has been described as 'deconstructionist' in nature,[60] likely the inspiration that led Levan to be offered a considerable number of remix commissions for Mel Cheren's *West End* record label.[61] Levan passed away in 1992 from endocarditis,[62] a consequence of extended drug abuse.

In interview, fellow *Paradise Garage* DJ and friend David Depino explained the trajectory of Levan's record collection after his death:

> Over the years they've vanished. I have some of his records … Victor (Rosado) has some … Mel (Cheren) had a lot of his records stored in the basement. When Mel died, who knows what happened to them … [63]

Levan's collection was thus dispersed at the time of his death amongst close friends and fellow DJs. Both Depino and Rosado still DJ sporadically at events themed around the *Paradise Garage* and Larry Levan's memory. It is likely some of Levan's records are still used in both Depino and Rosado's DJ sets. The whereabouts of Mel Cheren's portion of Levan's collection is not known.

Ron Hardy

Ron Hardy began DJ-ing in Chicago at *Den One* in 1974, and, after several years spent in California, returned to Chicago to DJ at *The Muzic Box* in 1982,[64] owned by Robert Williams. Hardy is considered by many to be the 'Godfather of House' (although the same moniker is also applied to Frankie Knuckles, as noted above). Hardy's residency at *The Muzic Box* coincided with the demise of Williams' previous venture, *The Warehouse*. Hardy was considered a particularly experimental DJ, with sets being referred to as 'frenzied.' Hardy produced a series of re-edits and remixes, primarily for his own use, that have seen represses in recent years (e.g. Partehardy Records). Hardy passed away in 1992. Sources suggest his death was a consequence of AIDS as a result of intravenous drug use.[65]

Evidence of Hardy's collection is extremely limited. One interview conducted for the Gridface website with Bill Hardy, Ron Hardy's nephew and fellow DJ, suggests the trajectory of Hardy's collection. Bill Hardy stated that, upon Ron Hardy's death, the collection was placed under the care of Robert Williams (proprietor of *the Muzic Box*) by Ron's brother, Bruce Hardy. Bruce died three months after his brother, upon which Bill Hardy lost contact with Robert Williams. In the interview, Bill Hardy suggests that:

> . . . the rumors were out there that the records were being sold left and right to people, but I don't want to say necessarily who was selling them . . . . But I still had my share . . . . I'm not as upset about it as I was. Now that I think about it, I'm glad it's splattered out there everywhere, 'cause there ain't no telling what I would of did with all the stuff, 'cause I still had to lug my own collection around.[66]

There has been no further evidence of Hardy's record collection reported by DJs or in the media. As such, Hardy's collection must no longer be considered a complete entity, potentially sold and, for all intents and purposes, 'lost.'

~THE DROP~

Comparative analysis and findings

The approach adopted for this investigation into the evidential value of records and record collections comprised two specific methodologies, designed to complement one another: several semi-structured interviews with key figures, typically DJs, from post-disco /New York garage and Chicago house music history, specifically those operating at the birth and initial peak of these scenes (1979–1987 approximately); and an analysis of several record collections. The interviews were conducted on location in New York and Chicago in 2016, with some additional shorter follow-up interviews conducted via various online platforms in 2016 and 2017. Those interviewed include David Depino (DJ at the Paradise Garage), Tim Lawrence (dance music historian and author), Bill Brewster (DJ and DJ historian), Chip-E (house music producer), Jesse Saunders (house music producer), and Robert Owens (house music vocalist). The analysis of record collections comprised a site visit to Stony Island Arts Bank (the location of the Frankie Knuckles Archive) and research to identify possible comparable and contrasting case studies.

In the following discussion the four DJs are compared using the evidential framework presented earlier. The discussion is based partially on the primary research outlined above. Additional secondary sources were employed to offer further insight into both Bambaataa's and Hardy's collections.

Musical evidence

Concerning musical evidence, the Frankie Knuckles Archive offers a fruitful resource as it is possible to visually inspect the archive. The collection, unsurprisingly, contains a considerable quantity of house music and house music remixes, but also a wide range of other musical genres ranging from soul, funk, electro, rock and more esoteric records. The collection contains several white label releases, many of which offer specific artistic and track information. However, there are some unlabelled records that have yet to be identified, even when using etched matrix numbers. Using the Knuckles archive it is possible to identify the breadth and depth of Knuckles' taste and DJ aesthetic. The archive also includes records in sleeves that contain notes, drawings, and signs of significant use (rips, scuffed covers, etc.) suggesting preferences. Finally, there are several authenticated live set recordings available on commercial release with significant provenance, in addition to a number of unofficial, unconfirmed recordings of Knuckles' DJ performances.

At the time of writing, although a complete catalogue of the Bambaataa archive has been announced, it has yet to be made publicly available. The nature of the Cornell Hip Hop Archive restricts public access to Bambaataa's collection. As such, opportunities for visual inspection of the materials held within the collection are limited. Some footage from within the archive has been made available to news outlets,[67] while a number of academic discussions have been held concerning the archive in more general terms.[68] From these currently available sources it is possible to identify a limited number of records held within the archive as well as gaining some insight into the information they contain. In one such source, Ben Ortiz, Assistant Curator of the Cornell Hip Hop Collection (CHHC), stated: 'we like it when the jacket is all beat up, because you can tell that he used this record a lot, and it travelled with him a lot' and 'it tells us a lot about how it was used.'[69] It is possible to infer that the CHHC are not attempting to restore the collection, but rather preserve it with its evidentiary markers. However, without wider access to the archive, it is not possible to make significant inferences concerning Bambaataa's DJ practice.

Given the dispersal of Larry Levan's collection amongst fellow DJs, it may still be possible to access some of the materials he used. Depino and Rosado continue to play, particularly sets and performances surrounding the memorialization of the *Paradise Garage* and Levan himself.[70] As such, and as described already, it is reasonable to assume items from Levan's own collection may be played at such events and are therefore accessible to some degree, albeit sporadically and only aurally. It would therefore be difficult, for example, to scrutinize the visual elements of the items (such as sleeves, etc). Finally, one official live recording exists of Levan, released on *West End* Records with considerable provenance ('Live At The Paradise Garage' by Larry Levan, 2000), allowing some examination of practice.

Assessing the musical materials within the Ron Hardy collection is no longer feasible given the disassembled nature of his archive. Some unofficial live recordings exist, although their provenance is not proven. As such, Hardy's aesthetic and practice are likely lost.

Location/sequential evidence

Bambaataa's is the only collection explored here that maintains sequential or positional evidence. The archive consists of records in an unspecified order, but also individual flight cases each containing an assemblage comprising a cohesive and ordered subset of

records.[71] Of these flight cases, Ben Ortiz stated that the records: 'will never be separated from these boxes because those are actual sets that he created at a particular point for a particular purpose.'[72] Given the tendency for DJs to reuse and refill flight cases according to their whim or purpose of their performance, these cases provide a valuable insight into the selection and ordering of records played in live sets. By analysing the back-filing methodology often employed by DJs, it may be possible to reconstruct sets performed from these flight cases. Furthermore, the archive contains some themed containers of records. Ortiz highlights one titled 'Zulu Sure Shots' (the term *sure shot* in this context refers to a hit record guaranteed to work on a dance floor).

The Frankie Knuckles archive does not expressly maintain sequential or positional evidence. Surprisingly, given the public nature of the collection, there are no systems in place to ensure individuals engaging with the collection do not alter the sequence of the records. However, within the racks of records it was possible to identify some themes concerning its original form. There were identifiable groups or blocks of records that could be termed 'classic albums' (primarily soul, funk and disco albums by African American and African artists). Additionally, a specific subsection of records appeared to address Larry Levan directly, collecting many of his remixes and releases associated with both the *Paradise Garage* and West End Records. Further sections comprised large format packaging including original master copies and test-presses, often with attached manufacturer and label information; and shorter sections that appear to run in alphabetical order by artist. Of particular note is the presence of duplicate records placed together. Whether these records were used in live sets is not known, but the likelihood is that the double records suggest evidence of Knuckles using them to juggle or rearrange tracks live during sets. Identifying misfiling was not possible owing to the large scale and relative disorganization of the collection.

It is not possible to track sequential or positional evidence within Levan and Hardy's collections, due to their either being disassembled or lost.

Preference indicators

It is obvious from even a short observation of either the Knuckles or Bambaataa archive that DJ's collections are rife with subjective annotations and data. However, the subjective and idiosyncratic nature of these data proves sometimes difficult to interpret. Bambaataa's collection includes descriptive text annotations on some records including ownership and name labels, in addition to genre or musical descriptors (Ortiz highlights his annotation of 'funky'). The Knuckles collection does not include such descriptors.

However, records in both collections display a highly consistent subjective marking or rating system pertaining to individual tracks on records. Bambaataa's collection shows evidence of asterisks against track numbers or titles on sleeve tracklists, and handwritten labels and/or asterisks on the central label of the discs themselves. It is possible to infer that multiple asterisks indicate a strong liking for one particular track above other generally liked tracks.[73] Comparatively, Knuckles' rating system remains a 'mystery.'[74] The Knuckles' collection features a range of blue and red circular and rectangular stickers affixed to the centre labels of the discs (see Figure 2). However, the significance of the colours and their positioning is unknown as some records display only one or both. Some

Figure 2. An example of subjective markers applied by Frankie Knuckles to a record within the archive.

records also contain multiple stickers of each colour. In some instances, records with stickers affixed also contain marker-pen indications of which track is favoured in instances where more than one track occupies the same side of the record.

Unlike Knuckles' archive, Bambaataa's collection features examples of 'cover-ups,' the practice of covering the record's centre label with a sticker, which blocked other DJs from copying.[75], [76] Bambaataa's archive also demonstrates examples of cue stickers for breaks and juggling purposes. There were no instances of cue stickers found in the Knuckles archive, although the randomly sampled search was restricted to only 300 (6%) of the 5000 items.

Unsurprisingly, without direct access to the records or a visual inspection of Levan's or Hardy's records, it is not possible to identify examples of their subjective metadata. Even the limited photographic and videographic evidence of their live sets rarely includes the requisite detail to identify such subjective markers.

Ancillary data and other evidence

Owing to previously established issues with access in both Levan's and Hardy's collection, there is no means by which to identify any ancillary data and other evidence. Furthermore, given the lack of public access, and the limited insights offered by the CHHC press releases, identifying examples of ancillary data in Bambaataa's collection is also not possible.

~THE BREAK~

Themes in preservation and curation

This typological analysis of DJ's sonic archives highlights several broader curatorial issues and considerations for DJs, managers and others involved with dance music culture. The aim of this final section is to explore three such issues that directly relate the evidential framework to various aspects of curatorial practice.

Actioning preservation

In the preceding discussion, it becomes readily apparent that certain collections (particularly Knuckles and Bambaataa) were preserved with some level of forethought and prior consideration. Bambaataa's collection has already been archived although he is still alive. Preserving Knuckles' collection was already under consideration before his death. In an interview, Randy Crumpton, the attorney responsible for Frankie Knuckles' estate, suggested Knuckles had begun to consider the legacy of his record collection before his death.[77] Crumpton paraphrased Knuckles' thought processes, stating: 'We need to be able to tell the history of house music.'

Furthermore, in an interview, David Depino suggested that the disassembling and partial loss of Larry Levan's collection had been a potential influence on the preservation of Knuckles' collection.

> When Larry died we didn't think of things like a museum for his records or anything like that; when Frankie died so many years later people said let's not make the same mistakes we did with Larry, let's save things of Frankie's.[78]

Finally, concerning the 'lost' collection of Ron Hardy, it is arguable that this was one of the most important collections in dance music. Hardy's visibility beyond the early house music scene is severely limited, yet he is credited with establishing the musical conventions of house music, moving it away from Knuckles' New York disco-inspired sonic palette. Jesse Saunders, responsible for the first house music track 'On and On,' points to Hardy's experimental, heavier, more electronic approach as the true manifestation of house.[79] As such, an integral component in the history of dance music has been irretrievably lost.

Dynamism

The term 'dynamism' is used to refer to the vitality, functionality, vigour or even 'aliveness' of the collection and its use in music performance. Interestingly, when considering the Bambaataa collection, the restrictions placed on it as part of the preservation and curation process highly limit the ability to interact with the collection as an audience. As part of the process of archiving, certain records were toured with the 'Renegades of Rhythm' project,[80] a blend of historical narrative and DJ show presented by two highly accomplished hip hop DJs. The records were then returned to the archive for the final time. As such, Bambaataa's records will never again be used to entertain or to transmit the significance held within his sonic archive.[81] The Knuckles collection also suffers from a similar, albeit somewhat less strict set of conditions, being held within the building but still used for public engagement at special events with invited DJs or curators. However, questions remain as to whether an alternative method of presentation and curation is possible, and how best to both maintain the collection and allow public engagement.[82] Both the Bambaataa and Knuckles collections now seem to lack the dynamism with which they were once endowed.

Conversely, those records that were once part of wider collections (Levan's and Hardy's) arguably possess a greater level of dynamism. Levan's records potentially see semi-regular use by Depino and Rosado, and are used to transmit cultural memory to an

audience. They are even used to memorialize their original curator. Hardy's collection, whilst indefinable and obfuscated by distribution, distance and potentially even partial destruction, may possess a similar dynamism, being listened to in homes or played by other DJs entirely unaware of their provenance. This raises the question as to the function of preservation of such materials. Should they be preserved and curated for academic and aesthetic analysis? Or should they be employed to continue to spread and create cultural memory?

Identity and representation

Both the Knuckles and Bambaataa archives are directly engaged in preserving the sonic legacy of musical cultures. Their work and contribution are also notable as part of a wider African American history. The continuation of such preservation work is essential as part of the wider efforts necessary in scholarship to recognize the contributions of African American scholars, researchers, cultural practitioners and artistic figures. Furthermore, Knuckles, Levan and Hardy were all LGBTQ+ individuals, who contributed significantly to queer nightlife, and to dance music more generally. In preserving their archives, or attempting to reconstruct them, more socio-cultural resonances become apparent and the visibility of minority voices in wider musical debates is increased.

Interestingly, there are few comparable examples from non-African American DJs. The only contemporary example is that of John Peel, the UK-based DJ who championed many unsigned and esoteric bands and genres for several decades on BBC Radio One. However, Peel lacks a connection with any specific genre and thus provides a less useful comparison than the DJs presented here. His archive is currently being catalogued with Arts Council England and BBC funding.[83]

~ OUTRO~

Conclusions

The framework presented in this paper is a proposed archaeological approach to inferring and understanding a DJ's praxis without the artist's direct input. It attempts to unpack the relationship between the physical media and the performance, particularly with a view to extrapolating selection and performance choices, with only the material culture, the artefact and its assemblage, to guide the investigation. For example, from the case studies presented, the subjective and sequential evidence of the physical records allows a greater inference of praxis than merely a list or catalogue of a DJ's records, giving the vinyl records a degree of evidential value previously unanticipated.

This paper has also promoted a new conversation around three key concepts. Firstly, the preparation of DJs for the eventual archiving of their materials (their legacy) at the point of retirement or death, and the possible forward planning (such as that of Bambaataa and Knuckles) for such events. Secondly, the question of best practice for curating the resulting archives, and where that practice then limits opportunities for public engagement. Finally, to further raise the visibility of important champions of minority identity, people who are rarely scrutinized or even visible from the cultural perspectives of heritage, legacy and identity.

Arguably more than the historic clubs and venues (where these survive in anything like their original form), vinyl records and the praxis of DJs are the strongest link to dance music history. In some cases, integral parts of the sonic archive of dance music have already been lost (such as Ron Hardy's collection). The recent death of David Mancuso and the lack of information concerning his record collection serve to highlight the necessity of proactively curating these sonic archives before they disappear. Without such a proactive approach, DJs' record collections will not, like their inner grooves, stay around forever. They will degrade and fragment. New music will be made while digital archives continue to present their own conservation challenges and opportunities. Yet for these early and arguably iconic and formative vinyl records and collections, often central to the identity of minority groups, decisions need to be taken, often with some urgency. This paper presents a framework and some examples as a foundation from which such decisions can be made.

~ CROSSFADE OUT~

Notes

1. Busby, "What Does It Mean."
2. Sterne, *The Audible Past*.
3. Poschardt, *DJ Culture*, 228.
4. Bartmanski and Woodward, "Vinyl Record," 4.
5. Poschardt, *DJ Culture*, 221.
6. Thornton, *Club Cultures*, 127.
7. Latour, *Reassembling the Social*.
8. Gibson, *The Ecological Approach*.
9. English Heritage, *Conservation Principles*.
10. English Heritage, *Conservation Principles*. Our emphasis added.
11. See also Reed, "Reviewing Significance 3.0" for a more systematic approach to the significance assessment of archive collections.
12. See Harrison and Schofield, *After Modernity*, for an overview.
13. Thornton, *Club Cultures*, 52.
14. Macdonald, Morgan, and Fredheim, "Too Many Things."
15. E.g. Connell and Gibson, *Sound Tracks*.
16. Cohen et al., *Sites of Popular Music Heritage*.
17. Istvandity, Baker, and Cantillon, *Remembering Popular Music's Past*.
18. Baker, *Preserving Popular Music Heritage*.
19. E.g. Maloney and Schofield, *Music and Heritage*; Miller and Schofield, The 'Toilet Circuit'; and Schofield and Rellensmann, "Underground Heritage."
20. E.g. Parkman, "A Hippie Discography."
21. Miller, *Rhythm Science*, 68, and Kenney, *Recorded Music, 1890–1945*, 4.
22. Attias, "Subjectivity in the Groove," 42.
23. See Lacasse and Bennett, "Mix Tapes, Memory."
24. Poschardt, *DJ Culture*, 386.
25. Jordan, "Stop. Hey," 255.
26. Prendergast, *The Ambient Century*, 78.
27. Eshun, *More Brilliant than the Sun*, 17.
28. See Ratcliffe, "A Proposed Typology."
29. Rietveld, "Introduction" in "DJ Culture," 1.
30. Brewster and Broughton, *Last Night*, 19.
31. Toop, *Ocean of Sound*, 44.
32. Miller, *Rhythm Science*, 60.

33. See note 1 above.
34. Ibid.
35. Poschardt, *DJ Culture*, 221.
36. Interview with Vince Lawrence. (16 November 2016 Chicago).
37. Greasley et al., "Help Musicians."
38. Garner, "Ripping the Pith."
39. van Bogart, "Mag Tape Life Expectancy."
40. See University of Illinois' Preservation Self-Assessment Programme, https://psap.library.illinois.edu/collection-id-guide/softbindersyn. Retrieved 30 June 2019.
41. Baker and Collins, "Popular Music Heritage."
42. E.g. Elvers et al., "Exploring the Musical Taste."
43. Fikentscher, "'It's Not the Mix,'" 39.
44. Brewster and Broughton, *How to DJ Properly*, 194.
45. Records that contain samples, drum loops, and other musical elements that can be employed to scratch, juggle or perform other techniques; many of which originating in hip-hop and turntablist cultures.
46. It should be noted that in 2016 a series of sexual abuse allegations were made against Bambaataa (see Rys, "Afrika Bambaataa Sexual Abuse Allegations"). Cornell University (which houses Bambaaataa's collection) released a statement stating, 'Bambaataa's contributions to the development and growth of hip-hop are indisputable. His important archive will remain one of many in the Cornell Hip Hop Collection . . . ' (see Beduya, "Statement Regarding Afrika Bambaataa"). This paper will only examine the collection in isolation, with no reference to Afrika Bambaataa's activity, and does not intend to diminish the experience of the survivors of any abuse.
47. Brewster and Broughton, "Afrika Bambaataa," 191.
48. Brewster and Broughton, *Last Night*, 240..
49. Lefkowitz, "NEH Grant Will Preserve."
50. Cornell University, "The Cornell University Hip Hop Collection."
51. Lawrence, *Love Saves The Day*, 86.
52. Brewster and Broughton, "Frankie Knuckles."
53. Brewster and Broughton, *Last Night*, 240.
54. Interview with Chip-E. (16 November 2016, Chicago).
55. Slotnik, "Frankie Knuckles, 59, Pioneer" and FACT, "R.I.P. Frankie Knuckles, 1955–2014."
56. Pooley, "Frankie Knuckles' Vinyl."
57. Lawrence, *Love Saves The Day*, 47.
58. Lawrence, *Live and Death*, 65.
59. Interview with Davd Depino. (11 November 2016, New York).
60. Prendergast, *The Ambient Century*, 379.
61. See the 'Genius of Time' compilation by Larry Levan.
62. Pareles, "Larry Levan."
63. Online interview with Davd Depino. (11 November 2018, New York).
64. Arnold, "The Den: Ron Hardy's" and Brewster and Broughton, *Last Night*, 316.
65. Arnold, "Ron Hardy at The Music Box."
66. Arnold, "Memories of Ron Hardy."
67. Benjamin, "Explore Afrika Bambaataa's Records."
68. E.g. Reagan, "The Cornell Hip Hop Collection."
69. See note 67 above.
70. See note 59 above.
71. Ibid.
72. Ibid.
73. Ibid.
74. See note 56 above.
75. A practice also featured heavily in the UK northern soul scene, see Back, "Voices of Hate."
76. Undated letter from Terry Douglas to Frankie Knuckles found in the Frankie Knuckles Archive, Stony Island Arts Bank.

77. See note 56 above.
78. See note 63 above.
79. Online interview with Jesse Saunders. (27 December 2016); and Maloney, " . . . and House Music," 238.
80. Announcement on DJShadow.com, "Announcing Renegades of Rhythm."
81. Poschardt, *DJ Culture*, 221.
82. Perevedentseva and Garcia, "Chicago House Music."
83. Michaels, "John Peel's Record Collection."

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~ THE LOCK GROOVE~

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