

# The Space between the Notes— Research on Cannabis and Music Perception

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## I. Identity and place

### Music as a cue for drug consumption?

In 1998, the International Narcotics Control Board in Vienna released a report that pointed to rock musicians, their songs and lifestyles as one reason for increased drug consumption among young people in the 1990s:

By far the greatest influence on many young people in developed countries, as well as in some developing countries, is the promotion or at least the tolerance of recreational drug use and abuse in popular culture, particularly in popular music. Some lyrics of songs advocate, directly or indirectly, smoking marijuana or taking other drugs and certain pop stars make statements as if the use of drugs for non-medical purposes were a normal and acceptable part of a person's lifestyle. Popular music has quickly developed into a global industry. In most countries, the names of certain pop stars have become familiar to the members of almost every household. With such globalization of popular music, messages tolerating or even promoting drug abuse are reaching beyond their countries of origin". (INCB, 1998: Chapter 1 C)

One study published by the US National Clearinghouse on Drug Abuse from 1999 researched the contents of popular films and song lyrics for drug related issues. The study found alcohol and nicotine mentioned most frequently, followed by cannabis, including lyrics that mention legalisation issues (Roberts, Henriksen & Christenson, 1999).

The history of attributing rock and pop artists as drug mediators for kids, who would start to imitate a drug-poisoned lifestyle, can be traced back to the early days of the 20<sup>th</sup> century. Since the beginnings of jazz the connection between cannabis, music and creativity has been discussed (Aldrich, 1944; Barber-Kersovan, 1991; Böhm, 1997; Boyd, 1992; Fachner, David & Pfothner, 1995; Jonnes, 1999; Mezzrow, 1946) and politically exploited, as Shapiro or Sloman explain (Shapiro, 1988; Sloman, 1998). Harry Anslinger, head of the US narcotic control agency claimed to have put more jazz bands in jail than he could count, according to an interview with David Musto (Musto, 1997). In front of the US congress Anslinger spoke of "satanic voodoo jazz" and "reefer smokers" that would make white women want to have "sex with Negroes." Furthermore, he characterized smokers as being violent and insane. He also claimed to be able to distinguish between good and bad musicians: the good ones play notes as written down on a score but the bad jazz ones would add more notes in between what is written down because of using

cannabis and satanic voodoo rhythms (Sloman, 1998). In 1934, the New York based "Literary Digest" reported:

While whites often buy reefers in Negro night clubs, planning to smoke them elsewhere, sometimes they manage to gain entrance to a mixed-color party. The most talked of reefer parties—excluding those of Hollywood—take place in Harlem. Early in the morning, when night club singers, musicians and dancers are through work, they gather informally—these affairs apparently are never arranged—and have a few drinks.

With their uncanny power for wheedling melody out of even the worst pianos, it isn't long before the crowd is humming, softly clapping hands or dancing in sensuous rhythms that have never been seen in night clubs. There is little noise; windows are shut, keeping the smell of smoking weeds away from what might be curious nostrils.

Nor there is any of the yelling, dashing about, playing of crude jokes or physical violence that often accompany alcoholic parties; under the influence of marihuana, one has a dread of these things. Sensuous pleasure is the beginning and the end: "Let us enjoy pleasure while we can; pleasure is never long enough"—as Propertius put it. (Digest, 1934)

## Setting

The preferred setting for the consumption of psychedelic drugs is one which features appropriate environmental cues. Let us take a look at issues that might have had an impact on some developments of identity and place within popular music culture.

In certain psychotherapeutic approaches, an attempt is made to stimulate and evoke unconscious material for psychoanalysis. The psychiatrist Osmond introduced the term *psychedelic*, which means "expanding psychic reality." Leary, Sandison, Grof, Leuner and Eisner and other founders of *psychedelic therapy* discovered that a setting, realized via works of art, fairy tales, narratives, music, ritual and selected interior, had a profound capacity to stimulate the unconscious and to provoke associations (Eisner, 1997; Grof, 1983; Leary, 1997; Leuner, 1962; Melechi, 1997).

The beginnings of the music therapy method "Guided Imagery in Music" (GIM) were based on the setting aspects of psychedelic therapy. Pieces of mostly classical or jazz music were presented in a thematic therapeutic order to facilitate emotions, evoke uncensored responses and associations, and to open a path to the inner world of the client's unconscious. Music as well as fantasy themes were used as *support and guidance* in the psychedelic setting (Bonny & Pahnke, 1972). The psychedelic agent—mostly LSD, Psylocybin, Mescaline, MDMA, or even Cannabis (Ames, 1958)—intensified the experience, changed the perception levels of stimulation modes and weakened defence mechanisms. All this happened in a relaxed secure and guided setting of psychedelic therapy. Anti-toxicants for a possible bad trip were at hand and therefore the patient could let go (Bonny & Pahnke, 1972).

The guided use of psychedelics—and cannabis acts like a mild psychedelic agent (Julien, 1997)—was further meant to induce a process of personal development, expanding consciousness in a specific setting (Leary, 1997). Psychedelics evoked peak

experiences in the right people under the right circumstances, as Abraham Maslow described in his books (Boyd, 1992; Maslow, 1970). Psychedelic therapy reported high rates of success as shown in therapies with alcoholics (Leuner & Schlichting, 1992) and in a prison rehabilitation project (Doblin, 1998).

## Tripping

Aldous Huxley's and especially Timothy Leary's intentions were to offer an affordable chemical means of self-experience and personal development for the public. Marshall McLuhan told Leary to "keep smiling" in order to convince the public of the success of his methods. McLuhan also suggested reducing the complexity of psychedelic therapy issues to a short slogan. In response Leary formulated his famous "Turn on, tune in and drop out!" (Leary, 1997).

Leary's slogan became a popular part of "do-it-yourself" reprogramming and spontaneous tripping during the 1960s as psychedelic agents moved to a street setting in "free concerts", "fools parades", "love ins", "be ins" and the like. To "do it" in the "here and now" and to experience society without learned and habituated perception styles became a political vision, as Tom Wolfe described his experiences in the pranksters "Electric Kool-Aid Acid Test" (Wolfe, 1989). Being children of their time the rising subculture of hippies transferred core elements of psychedelic therapy into cultural symbols: musicians went on stage to create public trips into sound as an acoustic surrounding for the "pot- and acidheads" on their trips into inner and outer space. Here, music was used and created as a guide to keep the acidheads "on track" during the hallucinogenic state.

The psychedelic movement of the 60s focused on the use of acid and its associations with psychedelic rock as a fundamental part of its counter-cultural ideas. In her analysis of "altered sounds," Whiteley described the concepts of journeying and of spatial exploration and perceiving in subjectively expanded time frames as core concepts of the 60s and again in the psychedelia return of the 90s. The known experience of the drug effects mediates the specific "Lysergic feeling" through the ages (Whiteley, 1997).

It is suggested that the parallels between psychedelic space rock, ambient and trance are rooted in an underlying philosophy based on an expanded sense of time which is analogous with both hallucinogenic experience and musical form (Whiteley, 1997: 132).

Space-Rock, as the name implies, refers to the sense of being 'spaced out', 'tripping', and is musically constructed through layers of sound, kaleidoscope colors, unpredictable and sometimes disorienting effects which create a dramatic realization of movement through time and space, and which are analogous to the extra-ordinariness of hallucinogenic experience (Whiteley, 1997: 128)

## Acoustic space

Curry reported the essence of his participant observations on stage, backstage, and in interviews with musicians and audiences in the USA west-coast music scene in the 60s:

When an individual becomes aware of acoustic space, or when there is a hyperfocusing on sound (both of which can result from psychedelics, pot or hashish, and amphetamines), a profound reaction occurs in that individual. In terms of cognitive style, he is no longer orienting himself optically. Thus, when the musician or listener closes his eyes (as any Mozart fan can confirm) an attempt is being made to “get into the sound”, to experience the simple reorientation that comes from shutting out the flat visual space and responding to the “perception” of spherical acoustic space. This is a crucial aspect of many of the social rituals which have evolved from the psychedelic revolution (witness the elaborate corporate structure that has arisen to provide the essential artefacts—records, strobe lights, incense, glass beads, etc). (Curry, 1968: 214)

The psychedelic journey into sound might be understood as a metaphor for an enhanced and intensified experiencing of the musical time/space. The psychedelic process refers to the altered perception of time, which is linked in the music to the perception of acoustic space, to a hyperfocusing of attention on sound. But *how* is it perceived that way?

## II. Cannabis research

### Time expansion

All kinds of processes occur in time. We are “patterned frequencies in a matrix of time,” improvising our identity in the personal set and setting of situations we’re in, as the music therapy researcher Aldridge says (Aldridge, 1989). In the experience of time as *kairos*, time structures are connected to personal time. Time as *chronos* is connected to processes concerned with defined geographical and societal agreements. Kairological time allows a variety of time perceptions and deals with the right time to do something, to decide or act directly in the here and now. A talk can seem like hours, even it lasts only 20 minutes or it can be exciting and experienced as only a few minutes. There must be specific moments, situations and interests that interfere with a personal kairological set of emotions, habits and attitudes. We need specific settings and surroundings that make us experience an event as an acceleration (a “rush”) or a slowing of time.

Cannabis influences this personal set. There is a feeling of time being stretched or expanded or perceived as slowed down or sped up. 95% of 151 participants of Charles Tart’s study on being stoned agreed to the following statement: “*Time passes very slowly; things go on for the longest time (e.g. one side of a record seems to play for hours)*” (Tart, 1971).

In most experiments stoned subjects failed to reproduce a correct metric counting of time intervals and tended to expand the estimated units. Jones reported that a 15 second time interval was expanded to a mean of 16.7 seconds with deviation up to 19 seconds estimated under the influence of oral THC, while being counted correctly in normal state (Jones & Stone, 1970). Melges suggested that a speeding-up of the inner clock is responsible for expanded and slowed perception of chronological time and for

producing temporal disintegration failures. “A subject becomes less able to integrate past, present and future, his awareness becomes more concentrated on present events; these instances, in turn, are experienced as prolonged or timeless when they appear isolated from the continual progression of time,” Melges concluded (Melges, Tinklenberg, Hollister & Gillespie, 1971: 566).

Emotion-related time and information selection processes are co-ordinated in the limbic midbrain, hippocampal and cerebellum parts of the brain, regions found to host high amounts of the recently discovered cannabinoid receptors (Joy, Watson & Benson, 1999). Another brain imaging study of time perception correlated cannabis-induced changes of cerebral blood flow in the cerebellum (Mathew, Wilson, Turkington & Coleman, 1998)

## Rhythm

If cannabis induces a subjective time expansion, music and especially musical *rhythm* must be perceived as expandable. In experiments Aldrich as well as Reed reported cannabis-induced changes on the rhythm scale of the “Seashore test.” Despite the controversial discussions about the Seashore’s usefulness, after cannabis intoxication rhythm was perceived more distinctly, and casual users, especially, had an obvious improvement on the rhythm task (Aldrich, 1944; Reed, 1974). Most of Aldrich’s subjects—two of them musicians—said that they had the subjective impression of perceiving tones and rhythm better after cannabis intoxication.

Jazz musicians of the 20s and 30s had to play the whole night for dancing so embellishment of song structures was needed and cannabis seems to have provided a nice inspiration for the task. With marihuana “the swing musician ascends new peaks of virtuosity,” claims a 1944 Life magazine article (Aldrich, 1944). Cannabis’ first euphoric level seemed to help musicians to expand the melodic, harmonic and rhythmic structure of dance songs in their improvisations, according to the psychiatrist Winick (Winick, 1959; Winick & Nyswander, 1961). In a 70s interview with Larry Sloman, Dr. Munch, the physician in Anslinger’s team, remarked:

... if you are a musician you’re going to play the thing the way it is printed on a sheet. But if you’re using Marihuana, you’re going to work in about as twice as much music in-between the first note and the second note. That’s what made jazz musicians. The idea that they could jazz things up, lift them up... (Sloman, 1998: 147).

So changed time estimation may temporarily enable an increased insight into the space between the notes, as if music is heard with a sort of time lens. In any case, Bateson refers to the “space between” as a noise ratio relationship between information units that enables us to generate new patterns (Urchs, 1986).

## Altered frequency perception

Audiologists measure the sensitivity of the ear to sound levels, presenting tone level increases on defined frequency ranges and intensity levels. Martz investigated frequency thresholds and found improved thresholds at 6000 Hz after cannabis intoxication (Martz, 1972). De Souza asked for tone preferences and found that higher frequencies were preferred in the “stoned state.” It seemed that higher frequencies were perceived more consciously than before. (de Souza, Karniol & Ventura, 1974).

High frequencies represent the overtones of a certain sound source. The mix of specific overtone patterns and their time delay offer information on spatial resolutions of a soundscape, and higher frequencies provide information on the spatial location of a sound source. Perhaps cannabis works like a psycho-acoustic enhancer, exciting or equalising units used in recording studios, making sounds more transparent and sound sources more distinct (Fachner, 1998). For Lindsay Buckingham cannabis seemed to refresh his listening abilities: “If you’ve been working on something for a few hours and you smoke a joint, it’s like hearing it again for the first time” (Boyd, 1992: 201). George Harrison would have agreed with him: “I think that pot definitely did something for the old ears, like suddenly I could hear more subtle things in the sound” (Boyd, 1992: 206).

At present there is no study that asked sound engineers for their experience with drugs. Further research regarding recording engineers and their experiences with cannabis and other drugs would be an interesting topic for the development of acoustics and mixing styles in popular music.

## Altered intensity perception

Caldwell reported an increased sensitivity to intensity thresholds. Loudness parameter detection was enhanced. He could not find cannabis-induced changes in basic auditory functioning of the outer and inner ear (Caldwell, Myers, Domino & Merriam, 1969).

Globus referred to Caldwell’s work and Becker’s conclusion (Becker, 1966) that cannabis effects are learned. He conducted a research design with three different groups. All of them learned how to adjust a loudness level of 800 mV (81 dB) sound level on a 610 Hz frequency. One group learned the loudness level in a “stoned state,” while the other groups learned the loudness level in a normal state. The task was to adjust the loudness only by an internalized imagery of the learned criterion tone. The last two groups smoked either a placebo or a THC-joint at a defined time period. After these two groups received the joint, they failed impressively in adjusting the loudness level. Only the marijuana learners stayed stable in their adjustment (Globus & al, 1978). As a result, Globus suggested an expansion of the auditory measuring units as responsible for the experience of an enhanced music perception.

Thaler and Fitzpatrick researched speech discrimination rates after cannabis intoxication. They reported high significant changes on different sound level, even with hearing impaired subjects, with the same results in a follow-up study. Fitzpatrick respected set and setting in her experiment, i.e. subjects smoked a self-chosen amount of dope in their private space and were then brought to the laboratory. They had an

increased speech perception rate at 10 dB SL and at 40 dB SL, even when covered with noise. Results were so surprising that they suggested giving cannabis as a medicine for hearing impaired persons (Thaler, Fass & Fitzpatrick, 1973).

Moskowitz reported an increasing number of false alarms in a signal detection task where subjects were asked to detect a randomly occurring 1000 Hz tone embedded in noise. It seemed that cannabis was stimulating tone imaginations because subjects heard tones that weren't there (Moskowitz, 1974). Tart reported an increase of more vivid auditory images.

It looks like cannabis has an inhibiting effect on the hippocampal censorship mechanisms as Emrich suggested. "Psychedelic states, may be described as states of an internal neuronal dialogue, characterised by an impairment of the capacity to correct implausible hypotheses in the 'betting process' between different types of 'perceptual hypotheses' in their interaction with sensory data sets" (Emrich, Weber & Wendl, 1989). His subjects couldn't decide whether a hollow mask has a convex or a concave structure. Their experience "told" them that a face has a convex surface, but a certain three-dimensional presentation produced a concave surface of the mask. Subjects in normal state saw only the convex surface of the mask, because the brain censored the wrong face structure. But subjects in 'stoned state' saw the concave mask, because of weakened censorship mechanisms by the drug. The experiment recalls William Blake's remarks: "if the doors of perception are cleared, we can see things as they really are" (Huxley, 1980).

In stages of high dose cannabis intoxication synaesthetic perceptions take place. All kinds of associations occur and emotions change very quickly. Sounds have a concurrent visual image, colours are associated or synchronised with them, as up to 50 % of Tart's subjects confirmed (Tart, 1970). Here the flow of sound induces visual imaginations or image forms, and it seems as if the brain resonates with more than one sensitive channel to sound and censorship is reduced to a minor level.

## Levels of cannabis intoxication

Becker in his classic study on marijuana use among jazz musicians could show that recognizing and enjoying the effects has to be learned (Becker, 1963). Jazz culture preferred the *euphoric* plateau of cannabis action, the period of laughter (Siegel & Hirschman, 1985) and emotional enjoyment, because it made them "hot" to play, their auditory impression of music was enhanced and they improvised more expressively (Curry, 1968; Shapiro, 1988). Hippie culture seemed to be more interested in the second phase of *contemplation*, or the visionary state, as Baudelaire described the three stages of cannabis intoxication in the midst of last century (Baudelaire, 1988). The third phase of vivid hallucinations, as Ludlow described, (Ludlow, 1857) depends on high doses (Ames, 1958) and a certain set and setting (Blätter, 1992), and leads to drowsiness and sleep. The typical behaviour of the stoners in the second and third stage created the term of "being stoned" (remember Bob Dylan's famous verse "everybody must get stoned"). "Stoner"-cultures as well as the oriental and Chinese opium smokers preferred to contemplate,

being in the orientalist state of “khif,” as Sufis refer to in their use of hashish as an intensifier of music perception and production (Gelpke, 1982).

### **III. EEG Brainmapping, cannabis and music perception**

Fachner had the opportunity to investigate an electrophysiological ethnographic pre/post EEG-Brainmapping study during “stage two,” with subjects listening to music in a relaxed habituated natural setting (Fachner, 2001; Fachner et al., 1995). This brain imaging method measures the different brain frequencies on their intensity and locality, creates a map of their distribution, and permits conclusions about cognitive and perceptive functions of brain areas involved (Duffy, 1986; Maurer, 1989).

Pre/post-THC 28 channel EEG-Brainmapping before/after smoking 20 mg  $\Delta^9$  THC in a tobacco joint was performed while four subjects listened with closed eyes to King Crimson’s instrumental piece “Prelude” (Crimson, 1974) and two songs. The songs were Dogbowl’s “Obsessed” (Dogbowl, 1989) and King Missile’s Beatles cover “We can work it out” (King Missile, 1989). Individual (IA) and group average (GA) comparisons between Pre/Post-THC-Rest, and Pre/Post-THC-Music were performed.

#### **Parietal, temporal and occipital changes during Post-THC-Music EEG**

As is known from EEG literature (Fink, Volavka, Panaiyotopoulos & Stefanis, 1976; Struve & Straumanis, 1990) even in this experiment most frequencies decrease in percentage and amplitude after cannabis ingestion. Psychedelic substances are known to increase information processing from the senses to the midbrain, but they inhibit involvement of upper brain areas (Cytowic, 1993). This process might be reflected in reduced EEG-power.

During stoned listening to music, however, Alpha frequencies increased in the parietal cortex. This brain area co-ordinates different perceptive fields between auditory responses in the temporal cortex on both sides and visual activity in the rear part of the brain. Furthermore it co-ordinates input from somato-sensory brain areas. This information is needed to co-ordinate attention and movement in their spatial relationship. Furthermore this area as well as the hippocampus and frontal brain areas co-ordinate selective attention processes (Kolb & Whishaw, 1996).

Dominant Alpha frequencies occur during relaxation processes (Kabuto, Kageyama & Nitta, 1993; Simon, 1977) and are considered the governing frequencies of the EEG-spectrum (Basar, Schurmann, BasarEroglu & Karakas, 1997). They indicate vigilant states and regulatory processes of information processing. Intelligence studies have shown increased Alpha power in gifted individuals during problem solving and are understood as indicators of an efficient information processing strategy. The degree of involvement in mental workload seems to be inversely related to the amount of Alpha frequencies in the EEG-Spectrum (Jausovec, 1997a; Jausovec, 1997b). In this study Alpha increases in parietal areas were observed during stoned listening to music.

As was expected, the activity of the right hemisphere was also obviously changed.

This hemisphere is said to serve the emotional, imaginative and intuitive brain functions (Springer & Deutsch, 1987). Cannabis promotes a state of euphoria and contemplation, which might help to focus more intensively on musical acoustics and sound structures.

### **Enhanced acoustic perception**

Bringing the above topics together, enhanced Alpha power in parietal areas correlates with a “cannabis high” during music perception and seems to represent a hyperfocusing of attention on the musical time-space. Music therefore seems temporarily to be perceived more effectively. Cannabis allows an intensified receptive state, providing altered metric units of time and intensity perception, which can be used for music production as well (Fachner, 2000). Those who are experienced might handle these alterations to the benefit their music listening and playing performances. (This could shed another light on Jimi Hendrix’s question “Are you experienced?”...)

Interestingly the T-Test showed significant ( $p < .025$ ) Pre/Post-music-changes for all subjects in the right temporal cortex on Theta and the left rear occipital cortex on Alpha. The right temporal area is considered to be the dominant temporal area for auditory music processing and was found to change in other EEG-studies as well as the occipital cortex (Auzou et al., 1995; Bruggenwerth, Gutjahr, Kulka & Machleidt, 1994; David, Pfothenauer, Birken & David, 1989a; Duffy, Bartels & Burchfiel, 1981; Kononov & Otmakhova, 1984; Petsche, 1994; Petsche, Pockberger & Rappelsberger, 1987a; Walker, 1977). Music processing involves visual capacities of the brain to separate acoustic and therefore spatial relationships of the sound perceived. Observed changes in these areas suggest an altered scaling of acoustic percepts (Fachner, 2000). This enables a temporarily increased insight into the space between the notes. Changes in the temporal lobe EEG might represent changes in the hippocampus region as well. The hippocampus is found to host cannabinoid receptors and has a strong impact on selecting information (Joy et al., 1999). Furthermore, Theta waves have been correlated with hippocampus activity (Klimesch, 1996; Meador et al., 1991) during state specific perceptual tasks. Theta changes in the present study give evidence for supposing a change of auditory perspective and selection.

### **Information processing**

Interpreted from an informational point of view, complex data of efferent and afferent sensory and motor processing is filtered and throttled through differing conceptualisation systems of the brain (Keidel, 1975). “Useless” information will be censored and conceptualised for an optimal performance of learned perceptual and motor functions (Emrich, 1990). Only a small amount of sensory and intentional motor-related information patterns is consciously present.

If the psychedelic aspect of cannabis efficacy induces a change in time estimation, then it is understandable that subjectively more things and events are experienced and present at the same time. A certain kind of insight into the space between the normal information

processing patterns can be obtained, so that you can “see the things” that are normally censored. One “sees” and feels more information patterns and experiences the period of time as extended and the course of time as slowed down. This common psychological experience of cannabis consumers has been explained as an inverse relationship of a faster inner clock and a slowed chronological “outer” time structure with an intensified focus on the present. Hence, we find similarities with the reciprocity of decreased Beta-, Delta- and Theta waves on one hand and on the other hand increased Alpha waves with individually different hemispherical shifts in the parietal cortex.

If a hyperfocusing on sound—as it might be observed in the EEG study—means perceiving more uncensored information about the acoustic space, and if the auditory measuring units are expanded and cannabis-induced enhanced imagery creates a moving visual soundscape, then experiencing synaesthesia is not such a stretch (Fachner, 1998). The preference for higher frequencies suggests an increased sensitivity for spatial locating of a sound source; therefore echo and reverb add certain time and space patterns to a given sound, and tripping through this frequency pattern allows a lot of time lapses. Perhaps this explains why one hears music differently with cannabis and that some “stoners” prefer the kinds of rhythmical trancy soundscapes characteristic of dance musics. It looks as if cannabis triggers a certain kind of insight into the mix of the moving musical time-spaces and allows the listener to temporarily overview and process more information at one time.

If the internet standard MP3, with its subtractions of frequencies means an increased censorship on sound, then cannabis acts as the brain’s own psycho-acoustic enhancer adding more uncensored information to the consciously perceived auditory habituation. This results in a temporarily intensified and broadened experience of the musical time-space. No wonder that some musicians since the early days of jazz have been attracted to the use of this substance for creative purposes.

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# Cabana Soundscape Displaced Transnationality and Music of an Andean Migration

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## Introduction

By the end of the decade of 1970, a particular migration started to develop when a group of women, native descendants of the ancient *Collahua* and *Cabana* cultures, made up their way to leave their Peruvian Andean site and migrate to the US. Once settled in their new geographical location, they became a link for relatives and friends to begin a migratory process that extensively increased along the decade of 1980. In 1983, they founded the *Cabana City Association* to maintain and nurture the solidarity of the group, but also to procure financial support to the Andean town of *Cabanaconde*. At present, more than 200 Cabana adults, without considering children and teenagers, live in the Baltimore-Washington-Metropolitan area where they work as American residents or even as citizens, but some of them also as undocumented.

Perhaps the first migration from the Peruvian Andes to the US, the Cabana undertook the effects of de-territorialization, displacement, and re-territorialization. They had to go through a process of re-negotiating and re-constructing their cultural identity. As a result a liminal identity has been generated. It is now an interstitial and marginal locus

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