### Free Sound Within Culturally Specific Practice

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#### Abstract

Since the 1980s, composers from cultures outside of Europe and North America have begun to integrate traditional elements within electroacoustic music. This has included the use of non-Western musical instruments, sometimes expanded by the use of electronics, sounds from local cultural environments, speech sounds in a native tongue, and non-Western aesthetic concepts and musical forms. A number of these approaches are discussed, accompanied by musical examples and analysis of what motivates composers to follow these directions. Implications for musical practice are also addressed, with a focus on first hand composer narratives and observations.

#### **1** Introduction

The growth of mass media and new technologies have had an internationalizing effect, of which one manifestation is the development of electronic arts and music in societies beyond Europe and North America. As composers become exposed to electroacoustic music and the means to create it, they often embrace its aesthetics and techniques at home or abroad. The first local studios were thus founded in the 1950s in Argentina and Chile, in the 1960s in Israel, in the 1980s in China, in the 1990s in Turkey and Korea.

As early as the 1950s and 1960s, composers from Turkey, Indonesia, Australia, Egypt, Brazil and elsewhere, traveled to the West, to the studios in New York, Paris or Cologne, seeking education about and access to new musical technologies. Although many of the composers at the Columbia-Princeton Center for Electronic Music in New York City originated outside of Europe or North America (for example, Mario Davidovsky, alcides lanza, Francisco Kröpfl, Bulent Arel, Ilhan Mimaroglu, Makoto Shinohara, Tzvi Avni), it would be difficult to distinguish, on a cultural basis, their works from those of Vladimir Ussachevsky and Otto Luening.

There is an irony in this fact, since many 20<sup>th</sup> century Western composers, such as John Cage and Lou Harrison, were profoundly influenced by Eastern musical concepts and aesthetics. Among these are the presence of noise

elements in Japanese *shakuhachi* and *biwa* performance, microtonality within Arabic music, and the primacy of percussion in Balinese and African music. Composer Rajmil Fischman (2005) observes that timbre, an emphasis in much electroacoustic music, provides "much of the common ground between electronics and non-Western traditions (e.g. emphasis on timbre as a multidimensional entity including pitch, morphology, gesture, motion...)."

Recently, globalization and the late arrival of Modernity in non-Western societies have at times reawakened interest in indigenous ethnic culture, especially within the generation of people attuned to new technologies. The proliferation of tape recording also made it possible for people to learn more about the traditional music of their own cultures. For these reasons, among others, traditional indigenous instruments have been integrated with tape or live electronics, processed sounds from traditional instruments have been used as source material for electroacoustic composition, and traditional aesthetic and musical materials have joined in dialog with the evolving aesthetic and practices of electroacoustic music.

# 2 Evolving culturally-grounded creative practice

There have been exceptions to the generally nonculturally specific electroacoustic music of the 1950s and early 1960s. Among them are two notable Columbia-Princeton composers, Halim el-Dabh and Darius Dolat-Shahi (discussed below), who created works drawing upon sounds from their native traditions. El-Dabh's 'Leiyla and the Poet' (1959), a setting of a Middle Eastern story, utilizes, among its sound sources, a traditional Egyptian stringed instrument and percussion, all subject to tape manipulation. Other exceptions include the Japanese "Return to the Source" movement (Loubet 1997) and early Indonesian works like Slamet Sjukur's 'Latigrak' (1963), for gamelan and tape. Also, the first new electronic instruments in Indonesia, Adhi Susanto's Gamelan Symphony (1976) and Gameltron (1978), were designed for the performance of gamelan music (Raharjo 2004, Living Composers Project 2004).

In the 1970s and 1980s, composers from beyond the Northern Hemispheres began to look to their own local traditions for inspiration, materials and aesthetics in electroacoustic composition. In 1970s South America, works such as Alberto Villalpando's 'Bolivianos..!' (Bolivia, 1973), Ricardo Teruel's 'Nuestra Cultura Vegeta' (Venezuela, 1976) and Joaquin Orellana's 'Humanofonia' (Guatemala, 1971) incorporated sounds from the human and natural environments of their cultures. In the late 1970s and 1980s, Persian composer Darius Dolat-Shahi composed works for traditional Persian stringed instruments, the tar and sehtar (two forms of lutes), integrated within electronic sounds. In Dolat-Shahi's 'Sama', for tar and electronics (Dolat-Shahi 1985), a rhythmic structure develops around a simple electronically-generated pulse and rhythmic tar figures, upon which solo *tar* improvisations evolve, periodically giving way to recorded sounds of birds and electronically processed sounds. The music always returns to the pulse, around which a filigreed tar solo emerges, devolving to electronic sounds and again returning.

In the 1980s and 1990s, culturally specific elements appeared in works electroacoustic compositions for tape, instruments and tape, or instruments and live electronics. Several examples are Yuanlin Chen and Dajuin Yao from China, Persian-American Shahrokh Yadegari, Jewish-American composers Richard Teitelbaum, Alvin Curran and Robert Gluck, Koreans Don Oung Lee, Sung Ho Hwang and Jin Hi Kim, Peruvian-Israeli composer Rajmil Fischman (active in the United Kingdom) and Israeli composer Avi Elbaz, whose work is influenced by his Moroccan origins.

Chen's 'Primary Voice' (Chen 2003) is a series of compositions that embed electronically generated sounds, some abstract and some tonal or percussive, within a traditional Chinese instrumental ensemble comprised of *hu qin* (fiddle), *di-zi* (flute), *yang-qin* (zither), *pipa* (lute), voice and percussion. Large segments of this work are lyrical and melodic, merging Chinese melody, featuring the subtle *portamento* of the *pipa*, and Western harmony, with the addition of rich and resonant electronic sounds.

Also in the 1990s, composers began to draw sound elements from the sonic and semantic qualities of their native languages. Among them are Chinese composer Dajuin Yao and Israeli composer Arik Shapira. These trends draw upon yet existing approaches within electroacoustic music, including text-based works, music for instruments and tape or electronics, the use of new gestural controllers and digitally processing found sounds. What is new is the conscious and often explicit use of traditional cultural elements or aesthetics within a field that historically shied away from self-conscious use of recognizable materials or representation, especially in the antecedents of Pierre Schaeffer's concepts of *ecoute reduite* (reduced/focused listening) and *object sonore* (sound object) (Wishart 1985).

#### **3** Motivation for cultural specificity

The starting point for some composers is a traditional musical form or instrument, expanded technologically and aesthetically through the use of electronics. Jin Hi Kim plays the 4<sup>th</sup> century Korean *komungo*, a stringed instrument with a rich, visceral, earthy timbre, traditionally used by Confucian scholars for meditation. Kim's goal, which she describes as "Living Tones" is to treat each note with reverence, consonant with traditional Korean music, as if each were a living, breathing being. Kim uses electronics so that "the living tones can be extended in color and shape, texture and duration of the notes ... beyond the human ability of [conventional] performing techniques" (Kim 2005). On the CD 'Komungo' (Kim 2001), Kim's performance is monophonic and at times incantational in feeling, often dwelling at length on individual rhythmically repeated notes, sometimes elaborated into simple repeated ornamental patterns, such as octaves and half-step intervals. Vibrato, string rubbing, bends, and other subtle alterations of the notes offer timbral variety. In 'Saturn's Moons' electronic processing, including a harmonizer algorithm, treats an electric komungo, mixed with additional electronic sounds.

For some composers whose materials are culturally specific, the underlying aesthetic is Western. Argentine composer Ricardo Dal Farra describes his work 'Tierra y sol' (1996) as composed "with the sonorities of many traditional instruments typical from the Andes Mountains. The blend of pitch and noise in their spectrums, the articulations, the intonation, the way the musical phrases are played by peoples (non-professional musicians) from the country or the streets of some cities of South America, attract[ed] me to compose this piece." Traditional timbres, especially when digitally processed, blend into dynamically shifting masses of sound.

Three Jewish-American composers incorporate sounds and instrumentation from older Jewish traditions within the context of electroacoustic works. Alvin Curran's In 'SHOFAR' (1991, updated in 1994) blasts on the ancient trumpet-like *shofar* (ram's horn) brings forth "a wide spectrum of brash contrasting colors, gestures and events unified by an equally diverse quality of sampled and recorded sounds from Jewish life and nature in general." (Curran 1994) The "ancient *Uralt shofar* sounds" are coupled with "the most technologically sophisticated electronic processing" (Curran 2005).

Two other Jewish-American composers compose works that feature layering of traditional Hebrew chanted texts. Richard Teitelbaum's 'Golem: An Interactive Opera' (1989-1994, Teitelbaum 1994) overlays recordings of cantorial prayer chant; Robert Gluck's 'Yiddish Songs' (1996, Gluck 1998) interweaves layers of early 20<sup>th</sup> century Eastern European folk songs, to create sonic "wallpaper" that ties together fragments of a tradition nearly destroyed in the Holocaust.

Chinese composer Dajuin Yao's 'red cinnabar drizzle' (1999, Yao 1999), for *pipa*, narrator and computer, draws upon the melodic qualities of spoken Mandarin Chinese. Yao extends the sustained texture of rapidly plucked *pipa* strings by the use of electronic processing. In 'endless frustration' (1999, Yao 1999) a dense sound cloud with shifting spectral qualities is crafted from time-stretched sounds of a phrase from a traditional Chinese opera and instrumental music. The overall effect in both works is a timeless, subtly shifting yet static sonic presence.

Arik Shapira's music often draws upon the sounds, rhythmic structure and meaning of Hebrew language texts. "I take the rhythm from the Hebrew language as I understand it. Hebrew is my love, inspiration and homeland" (Shapira 2005). Shapira's focus upon text and language, rather than timbre and abstraction, highlights the the vehicle that he sees at the core of Israeli identity and its highly contested politics. In the opening passages of the 'Kastner Trial, Electronic Opera in Thirteen Scenes' (1994, Shapira 1994), a setting of the transcript from a politically controversial trial, the sharply articulated rhythmic qualities of Hebrew language highlights the conflicted and impersonal nature of the case by juxtaposing the spoken text with a distorted double and with a repetitive electronic beat. Biblical chant is used to connect tragic past and present. The tape composition, 'Upon Thy Ruins Ophra' (1990; Shapira 2000), overlays multiple fragments of early pioneering songs, accompanied and gradually overwhelmed by brief introjections of electronic sounds. The songs' idealistic spirit is counterposed by what Shapira sees as the abrogation of that spirit by subsequent pioneering efforts.

Another Israeli composer who draws upon culturally-specific sonic material is American-born Stephen Horenstein. 'Andarta' (Memorial, 1987) utilizes field recordings of Holocaust survivors to create a poignant portrait of a tragic period in the life of the Jewish people and the newly emerging nation of Israel. In 'Zman Emet' (Time of Truth, 2003), the sounds of a double woodwind quintet are processed and distorted, "gradually accompanied [by] faint echoes [of] the Versailles building collapse [a wedding hall that failed in 2001 due to faulty construction] and other environmental sounds. The piece is meant to reflect the grotesque irony about a particular period in Israel contemporary history." (Horenstein 2005)

The music and software design of Persian-American composer Shahrokh Yadegari unfolds within a critique of electroacoustic practice. Yadegari cites as problematic the bifurcation of musical form and content material/sound that is characteristic of Western, including electroacoustic, music. "The computer, a product of mechanization of logical processes, has always been portrayed as a Western instrument. Thus, computer music has often been produced based on Western ideas." (Yadegari 2002, 8) Yadegari locates an alternative approach, one that unifies form and content, within traditional Persian music, "a framework for improvisation ... mostly based on a collection of vocal melodies ... involv[ing] many rules and the musician needs to learn and internalize the complete body of the ancient melodies. This complete repertoire together with its hierarchical classifications and functional definitions of its melodies is called the Radif." (Yadegari 2002, 149)

Yadegari designed a compositional system for computer music, Recursive Granular Synthesis, within which "the unity of form and material can be used in this paradigm by applying the same algorithm for defining the micro structures of sound all the way to the macro structures of form." (Yadegari 2002, 129) An example may be found in 'Tear' (1999, Yadegari 1999:1), which the composer describes as "a study on the relationship between timbre and melody" (Yadegari 1999:2). The composition is constructed from RG synthesized sounds and "a melodic improvisation by Mohammad Reza Shajarian, one of the greatest living vocalists of Iran, in the mode of "Bayat-e Tork" (similar to the western scale with the 7th degree flattened a quartertone)."

#### 4 Timbre bridges traditions

The distinct features of some Eastern instruments, particularly stringed instruments, suggest the possibility of close attention and creative treatment to timbre. Turkish composer Sinan Bökesoy observes: "The richness of Eastern instruments demands a more personal adventure between the performer and the instrument itself. So the parameters of the instrument (tuning, resonance...) can be altered extensively to provide more richness in a mono[phonic] layered pitch (I don't like the word 'melodic') structure."

The timbral control allowed by some instruments - the author's own work suggests the Turkish *saz* (lute) as an example (Gluck 2005) – can be enhanced and extended through the use of electronics. Korean instrumentalist Jin Hi Kim (Kim 2005) believes that an essentially new instrument is created when the timbral possibilities of a traditional instrument are electronically expanded, extending not just technique or timbre, but what she refers to as "the atmosphere of a traditional instrument", its musical capabilities and the aesthetic values represented by its tradition. In this way, traditional instruments can inform contemporary practice. Ethnomusicologist Mark Slobin suggests the possibility of a two-way dialogue when he describes traditional practices as dynamic and not static.

"Tradition is a process, not a set of objects. You have to think of ethnicity as a set of resources that people use, not as a particular content or a particular set of objects. The concept is how they think about who they are ..."

## 5 Challenges integrating traditional and electroacoustic music

It has become increasingly common for Western musicians to draw upon Eastern musical instruments and traditions. Often this integration is problematic, especially when the borrowing is done in a manner that is ignorant or disrespectful of inherited traditions (Gluck 2005). As Fischman (2005) observes, "Perhaps, it is not simply a matter of including elements of other cultures to spice the music, as exemplified by some commercial categories such as 'world music', which often end up as 'sanitized' versions for delicate Western palates or, alternatively, as Western music in disguise for the consumption of the locals." Also, the pull exists, Yadegari cautions: "when one attempts to use the computer for a non-Western music, it becomes a difficult task not to appropriate or marginalize the non-Western tradition within the Western frame of mind." (Yadegari 2002, 130)

Some electroacoustic composers have experienced conflict with tradition-bound instrumentalists who are often protective of the purity of inherited musical forms and sounds. Further, as Bökesoy (2005) notes, "Composing in the contemporary domain requires a much different handling of the traditional instruments, which have been performed in the same manner for centuries (especially Eastern instruments). Maybe a traditional rhythmic pattern is the last thing you want! Taking a Turkish percussion [instrument] in my hand, I try to first forget all the previous cultural background I have with the instrument. But isn't this also the way we start every composition - with the feel and challenge that we don't know anything? Then I try to use my ideas to excite the instrument, since it is just an artificially made resonating body. Given the conditions of performance and composition I try to make a catalogue of ranges of timbre results."

Consumer electronic music technologies can also cause distortions of the unique features of a traditional instrument. Kim (2005) suggests: "If the instrument gets equipped [with electronics] and it looks bigger or stronger, the subtlety of the instrument gets lost. The surrounding [aesthetic, artistic and cultural environment] of the instrument is more than just the [physical] instrument [and can become lost]." Off the shelf digital processors can produce sounds that are "ready-made. You can't alter the outcome. The processed sound is too common." Kim recalls that her first electric *komungo* "sounded like electric guitar. For Kim, the essential ingredient required for respectful creative exploration is the discovery of "a meeting place between the two [musical approaches]". She adds that the failure to do can result in "destroying the tradition". If one is well educated within one's cultural tradition, "the traditional aesthetic of music can be preserved [while using] music technology. [Because of this,] I still keep the meditative energy in my electric *komungo* music" (Kim 2005).

#### 6 Discussion

Clearly, a growing body of electroacoustic composers culturally rooted outside of the Western or Northern hemispheres is exploring the intersection between traditional musical forms and electronic technology. The results have often enriched the fields of electronic and computer music, taking it in directions that could not have been predicted by its founders.

This development may be seen as the expansion of electronic technologies into domains that remain tied to traditional musical forms. For some, it may reflect an affirmation of historical cultural roots and traditions. In an age of expanding globalism, some look to the past for a sense of belonging and a connection to what is perceived as an authentic, as opposed to mass commercial culture. This should not be surprising in a time of increasingly porous concepts of personal identity, when people can voluntarily don and doff cultural ethnic, religious, political and even racial identification.

Should the cultural bridge explored by the composers discussed in this paper become a *sine qua non* of creative endeavor? The answer is clearly no. What is meaningful for some need not be the best path for others. There is also a need for extensive dialog about how to locate cultural particularism within a musical tradition that historically defined abstraction as a universal. (Chion 1982, Wishart 1985, Emmerson 1998)

Rossi (2001) concludes: "Composers in the so called peripheral countries are at the crossroads between finding their own personal identity as creators and their cultural identity as members of a community that encompasses them. The challenge relates to getting to be oneself, discovering one's 'uniqueness' in all its potency. This process not only affects the creator but also influences and transforms the very geoculture he was born into. The transculturization of elements (as in the case of avant-garde techniques and composing in the "classical" style of European origin) must be digested, internalized, in order to reappear with a special potency, a unique color that will broaden the fringes of knowledge, as one explores the unknown lands of creation."

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