

Preface with one sentence about going to Angola?



TiltShift: Context

In January of 2006 I was staying with a new-found friend, Arthur, in the Bairro Popular, a neighborhood on the perimeter of Luanda. ^{Angola} ^{Arthur} My ~~new friend~~ worked at an international NGO with programs running in the peri-urban slums adjacent to the city. As part of this work he had met a young Angolan woman named Nora who was active in local community groups. Through her, Arthur had heard the performance of a musician called Socorro ("help" in Portuguese). Socorro, originally from the northern region of the country, wrote and performed songs in Portuguese and Lingala. Socorro was 31 when we met and dependent upon extended family and friends for his livelihood; he'd been blinded earlier in life in an accident never discussed. He was an aspiring musician and his work was well regarded in the neighborhood though he'd had little success in finding paying opportunities for playing. Socorro's musical style shares a number of harmonic characteristics of the semba-influenced musics popular in Angola since the 1960s [CITE MOORMAN] with a more ornamental, apreggiated guitar style, showing influence from Congolese guitar music [CITE]. Arthur fell in love with Socorro's music immediately

upon hearing it and had been contemplating the purchase of a device to record and preserve Socorro's music for his own collection at the time that I came to stay with him. When he learned that I was a recordist and had equipment with me, he began organizing a meeting where Socorro would play and I would record. The plan was that I would give a copy of the recordings to Socorro that he could distribute in soliciting gigs and in organizing support for a recording a CD.

Arranging our recording session was a usual affair by local standards. We were only in touch with Socorro via Nora and with her only intermittently as her poverty made it difficult for her to have access to a working, charged phone with credits. Nora didn't live with Socorro and communications with him were even more spotty than with us. Socorro and Nora's social group had strong feelings about who should be present for the recording session and checking on the availability of everyone that desired to be present for the recording could only be done on a day-by-day basis. The recording session was delayed at least twice because of illness—either a principle participant was ill or someone for whom they needed to care was ill. The recording needed to take place on a day and time that Arthur was available to drive us Golf II and at a time during the day when it was safest to travel to the neighborhood. The session also had to be at a time when Socorro's family could comfortably host us; presentation is important and hosting wealthy white foreigners was no small matter.

On the day we eventually made the recording—the last weekend before I was leaving on a trip of unknown length to the provinces—Arthur turned to me from his hammock, morning coffee and cigarette in hand, and asked if I was feeling up to the

session. I replied, "sure," and Arthur began the string of phone calls that would confirm everyone's availability. By the end of the morning it was largely arranged; we had organized a meeting place to pick up Nora, from which we would proceed through the neighborhood to Socorro's. In the middle of the afternoon heat, we set out across the rutted bairro roads, picking our way across usable neighborhood streets, in Arthur's small, battered work vehicle. At the edge of the neighborhood we joined a slow-moving parade of cars on a larger road and drove away from the city center. Within the hour, having traveled only a mile or two, we successfully ^{spelling} rendezvoused with Nora. Under her direction, we turned off the dusty, smokey main drag past the street vendors lining the road into the neighborhood and past row upon row of small yards partially obscured by cinder block and tin sheeting in various states of partial construction.

We arrived at Socorro's compound, announced ourselves, and waited for someone to greet us and usher us through the improvised, barbed-wire gate. Once inside there was a quick round of introductions before we moved against a wall to a section ^{of} the yard where stools and an umbrella had been arranged and where shade ~~was~~ would begin to grow as the sun moved past it's highest point. Socorro set up with his guitar on a stool with his back to the wall as a friend and collaborator, [NAME], grabbed a second guitar and settled in next to him. I set up directly across from them with a stereo microphone recording to MiniDisc and asked them to perform a little as I set levels and figured out what distance was best for the recording. I recorded directly between them to get maximum isolation of each performer on two channels with the idea that I could balance them and pan them more easily in the studio later. There was a brief discussion about the

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technology I was using ¹ and Socorro was disappointed to learn both that I didn't have any additional technology with me (like keyboards) and that there wouldn't be an opportunity to do any overdubbing on the session. The solo acoustic guitar sound that Arthur had fallen in love with was far from Socorro's artistic ideal of a full, electronic band. Socorro wanted to be able to sell the CD and knew that if it had no beat and thus wasn't danceable it had little likelihood of commercial appeal. Socorro was somewhat relieved to learn that I could splice together multiple takes to remove errors from individual sections and that I would have the opportunity to do some kinds of editing in post, but he remained concerned that I couldn't do it on the premises such that he could supervise it. Once the technology seemed adequately understood, we began recording.

Recording proceeded ploddingly; like many talented artists Socorro is a perfectionist. Recording outside in close proximity to the sounds of neighbors and of passing traffic made for challenging conditions. It was hot and sunny which ^a affected Socorro's instrument, his voice, and his performance. He required breaks of a few minutes between each song and sometimes between takes. On multiple songs we had to stop and re-tune the instruments before finishing or before re-recording a section. We took time to discuss each song, its title and inspiration -- many of which are written in Lingala -- and the translation and conversation among the group was time consuming. It seemed important to go slowly and to rest, but the heat was taking a toll on everyone's energy and it seemed that the longer the session dragged, the less likely it was that we would complete all of the songs that Socorro wanted to record. One benefit of the heat was that the neighborhood was quieter as people were resting rather than working, but as

the sun begun to fall in the sky and the shade began to lengthen, the neighborhood grew increasingly noisy and traffic in front of their gate began to increase. The end of the session began to feel rushed as everyone was tired and beginning to worry that we had appropriately maximized our opportunity to capture the music. On multiple occasions during the session Socorro grew frustrated with his performance or that of his companion. Things were going well but it was clear he was operating with a sense of desperation. He was destitute with little hope for the future and he felt a tremendous amount was riding on the opportunity to have his music recorded.

After about three hours of recording, with one longer break in the middle, we decided to call it a day. We had recorded 13 songs in multiple takes (an amazing amount of work considering the conditions. After I quickly listened back to some of the material and pronounced the session a success, everyone relaxed considerably. It had cooled a few degrees and shade had overtaken the yard. We all had a shared feeling of success and began to enjoy the moment. We took pictures of everyone in various groups and I gave everyone a chance to listen to some of the recording over headphones. The wide stereo image and the present sound of the electronic recording exceeded their expectations and they were excited at the prospect of receiving CDs after I had a chance to edit some of the material.

The sun was beginning to set by the time we left the compound to drop off Nora and head back to Arthur's house. Traffic was terrible as people were ^{headed} ~~head~~ed back into the city after a weekend away and we began to get nervous about driving around after dark. We dropped off Nora easily and Arthur had good luck with a new route back to the house,

where we arrived just after dark.

I had traveled to Angola with my recording equipment but without my computer; I was without a method for editing the sound files from Socorro's recording session until I returned to the US. Both Arthur and Socorro understood that it would be quite some time before they received a copy of the files. Even after editing them, it would be difficult to find a way to transport them back to Angola. Still today there is no reliable (--) not to mention affordable (--) international shipping service and in (2006?) no one we knew in Angola had access to a network connection fast enough to reliably transfer the files electronically. Even if I could have sent the files to Arthur electronically, burnable CDs and duplication services ^{in Angola} were difficult to come by, expensive, and unreliable at the time. 2006 was to be a busy year for me academically, and with no way to transport a CD to Angola I had little motivation to edit Socorro's project. It languished as I worked on other projects and I prepared for a return trip to Angola in January, 2007.

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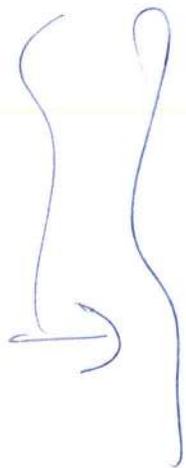
In January 2007, I returned to Angola with Rebecca and my 8 month old son, David. In trying to further develop contacts and in searching for a safer and more convenient place to stay with a child (--) somewhere with a generator and water tank to have reliable access to power and water (--) we made arrangements to stay with writer, friend and mentor, Manuel Rui Monteiro. I had been put in touch with Manuel Rui by writer and Brown faculty member Onésimo Almeida. Manuel Rui is a well established Angolan living in a comfortable home in one of the nicer sections of Maianga in the city proper. As a well respected and internationally known author he is well connected to

artists, to faculty at the Catholic University, and to government officials with responsibilities in the area of culture. It was only upon returning to Angola and staying at Manuel Rui's home that I finally began working on mastering Socorro's CD. I finally had the time to do the work as we spent most of our evening hours at the house (I had brought my laptop this time). I felt pressured to finish the CD quickly both because it had already been a year since the recording session and because there were other "deadlines" approaching. Not only was I slated to meet again with Arthur, who would ultimately transport the CD to Nora and then to Socorro, but Manuel Rui had also arranged for me to meet with a variety of influential artists and I wanted to take advantage of the opportunity to promote Socorro's music.

Having learned on the previous trip that quiet is rare and precious in Luanda, I had purchased a pair of sound isolating earbuds for monitoring during recording and for editing. I chose a pair measured as having a relatively flat frequency response. I also spent a good deal of time in the fall and early winter listening to them to get a sense of their color. I was confident that I could listen with adequate detail to mix with them, but I wasn't confident that the "up to 37 dB" reduction of ambient noise would be sufficient for working in Luanda.

Staying with Arthur in the Bairro Popular the noise problems came because the house windows were open onto a moderately busy neighborhood street in the front and to neighbors in the back. Arthur's home was part of a shared compound in a style common for the neighborhood. The home's owner had built small rooms enclosing areas of the yard surrounding a main house and moved into them in order to rent out the main living

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space. The barred-in porch on the back of the house opened directly onto the neighbor's primary living space (formerly the driveway). When the the power was on, a TV or radio was left blaring and the sounds of conversation, housework, cooking, and the wails of the landlord's ailing and senile mother filled the house at an astonishing volume. In front of the house, in addition to the traffic, the neighborhood's jocular teenagers owned the street. They passed most of their day on the sidewalks in front of their houses' and Arthur's. They would blare music from car stereos whenever they could and were generally noisy. They teased each other relentlessly at a yell, roughhousing and shouting between groups as people came and went up and down the street.

The challenges at Manuel Rui's were just as loud though more banal. The best-lit space with a table and air conditioning was the dining room. Here the cooling unit operated at a jet-like volume and the TV in the adjacent living room was set to be heard above it. Socorro's CD totals 13 tracks which I mixed sitting at the table with the AC behind me and the TV in front. The ambient noise reduction I got from the earbuds helped tremendously but listening was a challenge and fatiguing. One of the biggest problems with the recording was the presence of discrete background sounds like doors and gates slamming, neighbors yelling, and the sounds of the chickens that lived in the yard. The biggest part of my time was spent listening for these small imperfections and then finding a suitable moment from another part of the recording to substitute in its place. I set a goal of editing two songs per day on average and left myself 3 or 4 days for final edits and mastering before my first meeting. As with many projects, I worked in fits and starts in the first few days, completing a song-per-day or less. I worked more quickly

I don't really see why we need to know so much about your travels mixing the CD.

toward the end and finished the songs with two days for mastering. I did the bulk of the album construction on the first day and spend the second day give the work a final listen. ?

I'm satisfied with the final product which successfully foregrounds the songs. It has 14 tracks though I think it would be stronger edited to 10; a few of the weaker songs are co-written and exhibit less refined songcraft than Socorro's solo work. Socorro's lyrics or at least the ones that I can understand (--) are mournful but hopeful and are grave without becoming cliché. The co-authored songs are little more than stock refrains repeated with unoriginal melodies over repetitive, strummed chord progressions. The primary goal of the recording, however, was to give Socorro a copy of his work so I never gave a thought to delivering anything but a complete version of what he chose to record. The recording itself features the strong stereo image captured in the original session. I had initially planned to mix the material more to the center but found myself enjoying the wide sound, so kept it. There's a directness in the presentation with the rough edge of Socorro's tired voice and noises from the cheap guitars strongly present that I enjoy. It's clear that the work doesn't reflect the polished studio feel Socorro initially wanted but I feel it captures well his vocal, guitar, and song style.

The first meeting Manuel Rui arranged for me was with Teta Lando² renowned singer and president of UNAC, the National Union of Artists and Composers. He had two primary goals for the union at the time: 1) to win the right to a national pension for artists with long careers and advancing age and 2) to help protect artist^s from profit loss due to pirating. As part of the defense against piracy, member artists would work together on one another's album launches. On the day of an album launch UNAC artists would fan

The big question for a reader at this point is: what does this have to do with your dissertation? why should we be learning so much about your CD project with Socorro? you ~~can~~ could really move much more swiftly through this, and point more relevantly toward your actual dissertation project

out through the entire city, selling CDs [→] trying to sell as many copies as possible before the illegal copies could make their way to the street. On the second day after a CD launch the artists would return to the streets to sell more CDs and to remove illegal copies from the hands of those vending the pirated versions that had appeared within 24 hours.

Teta described the difficult conditions under which even relatively successful Angola musicians operated; ^{Cost of living in the capital is extremely high and with an impoverished population there are few venues and opportunities to make money playing live music. Royalties from radio and television from the limited state-run media outlets were small and difficult ^{to} acquire. Production facilities were limited and costly. Original CDs were high-priced and available in limited quantities, both of which encouraged [^] pirating. There were a number of CDs that I would have liked to buy but was unable to attain original copies; I bought the pirated version when the original was unavailable. According to Teta it was essentially impossible to make a living exclusively as an artist.}

Near the end of our conversation about the conditions it was clear that Teta was frustrated by the situation. Talking about it made him slightly agitated and it was at this point that I asked him to listen to Socorro's music. I told him that I, and the American friends I had played it for, really liked it and that I was curious to hear his opinion. He listen to sections from a few tracks on the CD -- including longer parts of those I highlighted as my favorite -- and responded to the music with a shrug. He called it competent but unremarkable. He said that there were many (dozens? hundreds?) of Angolan musicians capable of similar music. The national attitude is that Angola is a country rich with individuals talented in the arts. Teta believes in Angolan musicians and

their talent. His belief is the reason he returned to Angola during the war from exile and a successful singing career in France. In a depressed sort of way, he said that it would be wonderful if conditions were such that artists like Socorro -- or, rather, other more talented artists -- could make more music and make a living doing so, but that it wasn't yet the case. He was frank in saying that he couldn't imagine how Socorro could realize his ambitions. As he explained the membership requirements for joining the union it was clear that Socorro didn't have a performance record adequate to join. It was clear that with limited resources there was nothing UNAC could do to help Socorro or artists like him.

Though initially dubious about his chances, I was even more discouraged at Socorro's prospects after meeting with Teta. It was two more weeks before Arthur returned to Luanda from a trip to the Netherlands and I could organize a meeting with him -- the final weekend before I was returning to the US. Though I was able to meet with Arthur, it was with too little time to meet again with Socorro or Nora. I handed the stack of CDs I had burned to Arthur for him to deliver. I told Arthur about the meeting with Teta stressing that he had heard Socorro's music and liked it, but that the union could offer no help. The next day I boarded a flight to the US and for a year had no news about if Socorro got the CDs, what he thought of them, or if they had been of any use. I did know that Socorro had continued to search for performance opportunities and that Arthur had gotten him one gig playing at a public event organized by his NGO. I saw pictures of the event that Arthur was able to post online, but otherwise knew nothing about what was happening.

My next return to Angola was January 2008 with support organized to stay for the year. With our son a year older and with designs on finding our own house in the neighborhood, we made arrangements to stay with Arthur again until we could find a place to rent. Upon arriving I learned that not only had Socorro been able to organize the recording of a studio album but that his music had quickly become popular: he had multiple songs on the radio in regular rotation. His new CD was widely available in the streets from pirates and his music could be heard throughout the city streaming out of cars and out of the minibus taxis. By the end of the year, his success had won him a place in Radio Luanda's Top 10 Angolan Artists of 2008 along with awards for best song, best new male artist, and best folk group of 2008.

I didn't have occasion to see Socorro during my year-long stay, but I did see Nora frequently. There was often talk of meeting with Socorro but we never worked to make it happen. Nora did, on one occasion, ask me for more CDs. They had used all of the copies I had originally given them without reserving one to make duplicates as needed (by 2008 CD duplication was widely available at local photo/copy/print shops at a cost of three or four dollars per duplicate). Socorro's studio CD had used some, but not all of the tracks from the demo and he was shopping the original around town as he tried to finance a follow-up studio recording. I left Angola in January 2009 and haven't yet returned. I monitor the national paper and Socorro is mentioned regularly ^{and} as has since released two more CDs and ^{as} he travels domestically and to Europe to perform. He has since made music videos which play on the national television stations and are available on YouTube. The government presents his music as "folk" and has held him up as an example of

"local" culture, though the press for his most recent album shows him trying to push beyond the provincial labels thrust upon him. His music featured prominently in the international television media produced for the 2010 Africa Cup of Nations which was hosted in Angola.

I own a copy of Socorro's first studio album, though not an original copy.

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TiltShift: Sound Description

I conceive the main compositional act in Tilt/Shift to be a single, continuous movement from microsound to macrosound. My goal is to present multiple views of Socorro's work that highlight his harmonic structure with my temporal structure. All of the sounds heard in the work are drawn from a recording of Socorro in a fairly direct manner; the organization of those sounds in time, however, is very different. Though the audience hears, in one way, only Socorro's music, in another they hear only mine.

When I start the software for the piece, an version of Socorro's song "Butayolelo" begins to play on a loop through a spectral analyzer. I start the piece itself by tapping gourdo. Each tap passes the frequency and amplitude of the ten strongest partials currently under analysis to a sound synthesis engine designed to produce a chime-like sound. Changing gourdo's orientation allows me subtle control over the envelope of the chime. As the time between the start of the software and the start of the piece is highly varied, when I begin my performance, I do not know what part of the song is currently running into the analyzer. During the first section of the piece, I attempt to use the

At this point we have no idea what (or who?) "gourdo" is! we are really missing that entire preparatory chapter, as I mentioned via email

sonified extraction of these small moments to orient myself within the music -- I try to figure out what section of the song I'm in and to find the pulse. The chimes have a fairly long decay and as I tap gourdo, the pitches begin to accumulate. The accumulation allows the harmonic substrate of "Butayolelo" to be heard simultaneously and independent of their original musical time. I mean for this to be the rough equivalent of hearing the primary pitches from the entire piece all at once.

Once I'm confident I know what part of the song is playing, I begin to mix sounds taken directly from the soundfile with the synthesized chimes. In this section, when I tap gourdo the chimes work as before and the action opens a small window onto a high-pass filtered version of the song ^{that} can be heard for a split second before fading out. I attempt, generally, to tap in conjunction with Socorro's beat. Pitching gourdo forward makes the window onto the soundfile close very quickly and sets the cutoff frequency of the high-pass filter very high, producing a short, thin sound. Pitching gourdo back closes the window more slowly and lowers the cutoff frequency on the filter, producing a longer, fuller sound. Rolling gourdo left and right adjusts the mix between the chimes and the soundfile; at one extreme you hear only chimes, at the other you hear only the soundfile, and in the middle both are heard evenly. My goal in performance is to fade in the soundfile slowly. I begin with short, thin moments from Socorro's piece and move progressively toward a fuller version of Socorro's song as I fade ~~out~~ the chimes.

In this second section I mean to offer enough time for the audience to hear the pitch relationships between the existing chimes and the entering music. I hope that the audience understands intuitively -- though not necessarily consciously -- that the song has

been progressing independent of my action and that the original time of the song is what has been driving the changes in pitches.

The next section begins with a short fade into a full version of Socorro's music -- a direct presentation of the recorded soundfile. This represents the middle point on the continuum of the piece. The first two sections intended to present tiny snippets from individual sections of Socorro's song. The remainder of the piece is spent working with individual moments of the music as well, but stretched rather than extracted or condensed.

Once the original version of Socorro's song plays for a few seconds, I begin expanding it by manipulating it's pitch. As the original playback continues, I add pitch-shifted duplicates to the mix. Using a spectral-domain pitch shifter I incrementally add copies pitched one, two, and approximately two-and-a-half octaves below the original. A new voice is added each time I ^{tilt}pitch gourdo all the way forward and then tap it. The lower material fills out the bottom of the sonic spectrum. As the artifacts from the spectral effect accumulate the sound ^{loses}loses temporal resolution and begins to sound slightly blurred.

As the pitch-shift is occurring, I also introduce the granular synthesis process that forms the basis for the section of the piece to follow. Rolling gourdo creates a cross-fade between the pitch-shifted version and the output of a granular synthesizer. As the section begins and I highlight the original song by keeping gourdo rolled primarily toward playback; as the section proceeds I roll gourdo to the other side, moving increasingly to the sound of the granular process. My goal in this section is to begin from the original

playback and move to the granular synthesis sound. I use the time-blurring from the pitch-shift as a bridge. This is perhaps the section in which my "two steps forward, one step back" approach to the piece is most audible. Though I view the piece as a single long transition, I make this transition by pushing ahead and then pulling back slightly and resting before pushing ahead again.

Once I'm satisfied with the introduction of the granular synthesis, I tap gourdo to move into the fourth section. This section is primarily an improvisation on Socorro's material manipulated through granular synthesis. In this section, I return to the original sonic material-- unaffected playback -- regularly in an attempt to maintain a perspective on the relationship between the song and the granular material. This section is the one in which I have the most improvisational freedom. I still do not, however, have control of what section of Socorro's song is available for manipulation. Playback of the original material continues through this section and is fed into a fairly long, rolling buffer. As new material comes into the buffer, the old material is allowed to fall out of it. I access the sound in this buffer with gourdo: one axis of the gourd controls the position of grains while the other controls grain length; I can change positions in the buffer by tapping gourdo. With this sound engine I can play audio that sounds essentially unmanipulated or I can produce time-domain effects that range from a stuttering playback head to a nearly "frozen" or infinitely stretched sound. Throughout the course of the section I try to move basically from the former extreme to the later. ^{latter}

In the fifth section I introduce the final effect by putting the granular engine on a crossfade with pre-rendered audio of an extreme time stretch. As I approach the limits of

how far the granular engine can stretch the sound, I slowly transition to a version of the file having undergone an extreme time stretch with a phase vocoder. In this section, I am still able to control the granular synthesis engine and control how I transition to the pre-rendered stretch but I do not have the ability to manipulate the pre-rendered version itself. As with the song, the pre-rendered material has been playing since the software was started -- though it's been inaudible. When I arrive at the final section I am never sure what part of ~~of~~ the stretched file will be playing. The sonic characteristics of the current moment from the pre-rendered file greatly effect how I transition to it, depending on what part of the song I was stretching with the granular process and how I was stretching it. These variables have the potential to produce a very different feel at the end of the piece.

Having transitioned fully to the time-stretched material, I remove the granular process from the mix and listen to the pre-rendered file before ending the piece. My goal is for the fade-out of the piece to occur at a moment of harmonic stability. The ending is a 30-second fade-out initiated by tapping gourd. If I ~~chose~~ ^{choose} the "wrong" moment to begin the fade it's probable that the piece will move from audible to inaudible at a moment of harmonic transition which makes for a much less satisfying conclusion than stability. A large part of my rehearsal for this piece has been to learn the content of the pre-rendered file so that I can start the fadeout at an appropriate moment.

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TiltShift: Reflections

In thinking about Tilt/Shift, one of the primary questions I ask myself is: why Socorro's music? When I meet new people and I tell them that I am a composer and that I work with recordings from Angola, most assume that I mean that I record the music I find there as a basis for my composition. This is not a part of my compositional identity, however, and I view Tilt/Shift as an exception to the work I do with soundscape recordings. Of the four dissertation concert pieces, Tilt/Shift is the only one that contains recordings of traditionally musical content.

The experience of recording Socorro's music had an indelible impact on me, however, and left me with what I first experienced as an inexplicable desire to do my own piece with one of the recordings. My inability to explain why I wanted to work with this source, especially given that I was predisposed to limiting pre-composed musical content from my compositional vocabulary left me curious to examine my original experience more closely and to try to understand how and why I wanted to work with Socorro's songs.

When I first began to reflect on the piece I remembered that I first went to Angola with the ignorant assumption that I wouldn't like the pop music I found there. I knew little about pop music from anywhere ^{continent?} on the continent ^{??} but I hadn't enjoyed what I'd heard in the Highlife and Soukous music to which I'd been exposed. I don't generally like what I hear as gospel-influenced, sweet, major harmonies and melodies combined with unrelenting, highly ornamented rhythms. As I initially made the all-too-common mistake of lumping all things "African" together [?] left I had very low expectations for Angolan music.

The minor-modal harmonies of Angolan music in the popular Semba and Kizomba styles combined with slow, lilting bass rhythms ~~that~~ stand in stark contrast to the music I had come to think of as stereotypical for the continent. Musically, I cut my teeth on bluegrass steeped in "lonesome themes" and "bluesy vocals," [XIII Smith, 2000. - Smith, R and R. D. Smith. *Can't You Hear Me Callin': The Life of Bill Monroe, Father of Bluegrass*. Boston: Little, Brown, and Co., 2000.] as I played mandolin and sang in a local bluegrass band starting at the age of four in eastern South Dakota, recording two studio albums by the age of seven. As a young teenager I sought my musical independence in the dark harmonies and slow progressions of grunge music [Walser, Robert. "Grunge." *Grove Music Online*. Oxford Music Online. 3 Jun. 2011 <<http://www.oxfordmusiconline.com/subscriber/article/grove/music/49139>>]. I hear something in the sorrowfulness and longing of those styles that I use to explain the affinity I've discovered for Angolan pop.

Socorro's music is in-line with the Angolan style, but exhibits strong influence from the "Congolese" style. I like his music but stylistically, I don't identify it as my favorite. Born in the north of the country in a region once part of the Kongo Kingdom that extended north into the Democratic Republic of the Congo and the Republic of the Congo, Socorro self-identifies as Kongo and frequently writes lyrics in the Lingala language. As Lingala and Congo are alternative names for soukous music, and given the cosmopolitan nature of soukous, it should come as no surprise that Socorro's music bears soukous's influence [cf: White, Bob W. "Congolese Rumba and Other Cosmopolitanisms," *Cahiers d'études africaines* [On line], 168. 2002 (Online since 25

December 2005). <http://etudesafricaines.revues.org/161>.] Socorro's sound integrates an ornamental, finger-plucked guitar style with what I've come to think of as "Angolan" harmonies. Socorro also highlights the bassline in his music in the style of semba, a lilting rhythm less consistently driving than that found in soukous.

In addition to being better aligned with my existing musical tastes than I expected, it's now clear to me that the experience of recording Socorro made such an impression both because of the proximity of the encounter and because I was in a deep state of ~~state~~ ^{of shock and joy} at how much I was enjoying the Angolan music I was hearing -- all of which was new to me as of shortly before my first visit. Encountering Angola directly I was forced, for the first time, to ~~except~~ ^{accept} the degree to which I had internalized "Africa" as a singular place and that I had done so despite a long-standing intellectual awareness of the prevalence of this problem, and despite having made a conscious ~~efforts~~ ^{effort} to resist it. I was awed upon hearing "Angolan" music for the first time because of the ways that it defied my expectations³. Growing more familiar with it in the context of my first encounters with the climate, smell, and sound in situ formed, for me, a tight ball of sensations, knotted together and not easily undone. Working on Tilt/Shift seems to have been a way for me to work through my relationship to Socorro and to Angolan pop music in general. In performance, when I'm manipulating Socorro's sounds, I often find myself sifting and searching for the things that I'm attracted to. In addition to paying attention to the sounds, I'm paying attention to my own response to them -- holding those that I'm attracted to and trying to discover the patterns and parameters of my interest.

In the fall of 2007, as I began to prepare for a return visit to Angola, I spent a lot

of time listening to the recordings I had done of Socorro. I found myself listening to harmonies in a way that felt almost out-of-time. I would listen to the music loudly and imagine the harmonies washing over me, trying to hold in my body the tones until a subsequent bass-driven wave pushed them away in a new wash of color. While doing this, I was reminded of experiments I had done the previous spring with piano chords and time-stretching software. I had been taking piano chords and stretching them spectrally to 10-100 times their original length and overlapping them, creating dense, undulating harmonies. It eventually occurred to me that by stretching Socorro's music in the same way I would hear the harmonies abstracted from the rhythms just as I had been trying to do imaginatively. I was excited to think that by stretching Socorro's sounds I would be literally able to listen to individual moments of music for longer periods. In so doing I felt able to concentrate my listening on the relationship between different tones -- the tones of two performers and vocalists collapsed together into a single, re-synthesized musical moment. In the spring, having returned from yet another trip abroad I ^{began} ~~begin~~ work on software that would allow me to do these operations in realtime. Performing with the emerging software I was able to to analyze, extract, compare, and sustain prominent partials from spectral analyses of live input ⁴.

How about some screen shots of the software for TTH/shift?

→ The live work recalled for me the experience of editing Socorro's demo. In both instances, working with Socorro's songs had me thinking hard about the nature of the recordings (straight takes) and the effects of my reconstructive acts in editing. I feel strongly that my piece relies, in large part, on Socorro's musical aesthetics even as I feel my own piece offers an experience utterly distinct from that of his work. Creating this

work has become a way for me to work through, in a personal way, well-theorized debates about authorship, copyright, and sample culture. The situation with the work itself remains complicated -- I do not yet have a firm understanding, developed with Socorro, about the conditions in which I can and should perform Tilt/Shift. I obviously feel confident presenting the work, without financial compensation to Socorro, in the context of my dissertation but I have turned down opportunities for other public performances of the work for being unsure about what permission he's given me to use recordings of his music. It remains a goal of mine both to come to an understanding with Socorro about my use of these recordings and to create recordings with him that I can use in future work.

that's
a shame!
I
didn't
realize
that

last name

1. Arthur and Rebecca graciously spent the afternoon translating between Portuguese and English
2. Again translated by Rebecca.
3. Waldemar Basto b. 1954 was the first artist to begin opening my ears. His 1998 record Pretaluz harkens to the music of the 1950s-60s which initially won me over.
4. The first application for this software was for the Pierrot ensemble piece I was working on called "Traces". In "Traces" I was also exploring ways to extend and blur pitches to form slowly-evolving harmonic shifts.