

# ChildArt





# ChildArt

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## EDITOR'S CORNER

For a while now, we have been working on an issue of ChildArt on music and music education. Finally, it is here! We hope it informs you about the importance of music and inspires you to begin playing music.

We are grateful to the famous musicians who took the time to tell us their stories and discuss the role of music in their lives. We are also grateful to the eminent educators and scientists who contributed to this issue. We are sorry we could not feature everyone we interviewed nor include every wonderful submission.

We hope that after reading this issue, you will play music with greater passion and listen to music more intently and with greater joy.

Happy reading!

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COVER ART made by children at the 2015 World Children's Festival. The back cover has photo of these artists.

# WHY MUSIC MATTERS



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Next Issue: April - June 2016, **Our Thirsty Planet**

# WHY MUSIC

# MATTERS

**M**usic is a giant melting pot of different cultures, a universal language that transcends borders and barriers. Music is for reading, humming, whistling, and singing. It is for playing, fiddling, strumming, performing, composing, thumping, bumping, rapping, dancing, and feeling. More than a sound, music brings joy to life. It comforts and heals.

In this issue we explore musical expression. Musicians from all over the world share how music changed their lives. We investigate the science of music and the correspondence between music and math. We also explore nature's song: the silence of outer space, the chirping of birds, and sounds of other creatures.

If you play a musical instrument, it increases your sensory stimulus. Musical training enhances the activity of important neural systems and stimulates language development in the brain. Anita Collins of TED-ed says, "Playing music has been found to increase the volume and activity in the brain's corpus callosum (the bridge between the two hemispheres), allowing messages to get across the brain faster and through more diverse routes. This may allow musicians to solve problems more effectively and creatively, in both academic and social settings."

Today, thanks to the technology, music is everywhere. Music is also used in psychological operations. In the movie, *Back to the Future*, Marty uses Van Halen's music to scare his dad awake, since his dad had never heard that sound before. The term "music torture" describes the subjecting of detainees, for example, at Guantanamo Bay, with very loud heavy metal music that never ceases, day or night.

## Identity

Music has many different styles of sound, known as genres. Pop, country, rock, hip-hop, electronic, rap, classical, and heavy metal are just a few. Think about the types of music you like. Do you ever wonder why you like the music that you like? We develop preferences for certain genres based on our love for what sounds familiar, like a precious memory. We also develop preferences based on our love for what sounds intriguingly distinct from anything heard before. Some ears even develop distaste for certain genres, but others accept all types of tunes. This is



called music preference. Your age, mood, environment, and identity can shape your musical preferences.

One's age can affect musical preference because of generational shifts in how new music sounds and what is considered popular, which may dictate what is played on the radio or in restaurants. Mood also plays a role. To relax and feel calm, you may want to play or listen to slower and softer music. Friends can also influence what we like by sharing their favorite songs with us. From music, we derive our identity. Every sound we hear becomes part of us, and expresses who we are.

## Expression

As a universal language, music is fundamental to human life. It reaches deep and touches our emotions. A song may bring tears to some eyes, and other songs may ignite the feet to dance. Music is composed of vibrations of sound waves with different frequencies, which echo the way we feel emotions. The oldest surviving example of a complete musical composition, including musical notations, is the Seikilos epitaph, a Hellenistic Ionic song:

**While you live, shine  
have no grief at all  
life exists only for a short while  
and time demands an end.**

Music has always been a powerful tool for expression. In Persian history, the legendary King Jamshid is known as the inventor of music. In Jewish tradition, Moses's sister Miriam led the children of Israel in singing a "song of deliverance" after they crossed the Red Sea. The Gregorian Chant is the oldest musical portion of the Roman Catholic liturgy. Music also plays an important role in the religious practice of Sufi Muslims.

## Neuroscience

Playing an instrument utilizes ten different parts of the brain from both its left hemisphere, which is artistic and creative, to its right side, which is academic and logical. The brain's complicated reception of music enables individuals to learn music information, recognize pitch and melody, and make body movements that respond to rhythm. Scientific evidence shows how music impacts our educational development, mental health, and the way we communicate.

Dr. Mark Jude Tramo heads the Institute for Music & Brain

Science and is a neurologist at the UCLA Medical Center in Los Angeles. His research shows how the brain turns sounds into something meaningful that we hear in our own heads. Actually, there is no sound in your brain; instead, your brain actively reconstructs sound waves to create what you hear. Your beloved melodies can be simplified to mere vibrations and pressure. Your ears collect these sensations, and different parts of the brain communicate to convert the acoustic sound waves into what you hear. In the areas of the brain that control emotion, words and music actually translate to emotions. Music helps reduce the pain, stress, and anxiety associated with physical and mental illness. Music can reduce suffering, and it can bring happiness.



## Sacred Song

Today, music expresses identity, freedom, and choice. Music is the sound of connection with our friends and family. It sparks memories and brings the past alive. Music is a stress reliever, a learning tool, and a mathematic problem solver. Music enables us to find common ground with people from different cultures whose spoken words we may not understand. Music teaches us to stop and listen. Listen to others when they speak. Listen closely, like you would to a new song. Treat every person like a sacred song. Listen also to the melodies inside you. They belong to you, and they create the sound of your unique and personal sacred song.



I grew up in a pretty artistic household in Eugene, Oregon. My mom was a painter and my dad was a dancer, and I was named after a Steely Dan album. They ran a photo greeting card company and were both very artistic. My mother was a big influence on me. She always seemed so balanced and was able to express herself through her art.

In 4th grade, I had a teacher who knew I struggled with reading, and she took it upon herself to spend time helping me find books that would interest me. It got me reading more. I was into very imaginative books. I loved Roald Dahl and John Bellairs. I also loved the “My Father’s Dragon” series, and “The Boxcar Children” Anything with adventure and imagination was right up my alley.

In 6th grade, I started choir. It was an elective, and most kids were a part of it. We traveled all around Oregon to put on performances. It was really fun. I continued doing theater through high school and went to theater school for a little while before leaving to focus on my music. It was always clear that I didn’t intend to pursue a traditional academic pathway. In fact, in highschool I refused to take the SAT because I just hated testing.

# I BELIEVE

**F**or years I did every kind of job you can imagine. I worked in restaurants, I was a car detailer, I worked in pizza shops and sandwich shops, I was a waitress, bartender, and a retailer in vintage and new clothing stores. Eventually, when I was about 27, I said to myself, “You know what? You’re never gonna support yourself as an artist unless you fully dive in and decide music is what I do, and music is how I’ll support myself.” **I think you have to really believe 100% in your ability to succeed, or you’ll never make it happen.** So, I quit every job that I had and focused on my band, Nico Vega.

I’ve been in Nico Vega since I was 24. Our original drummer’s mother’s name was Nico Vega. She passed away but her story really inspired the band and we named the band after her. We went from not making much, to making enough to survive on, to making more than enough to survive on. Then I met my husband Dan (Dan Reynolds, lead singer of Imagine Dragons) when I was about 29. I supported us for a while until he got signed to a record label and things started happening for him and Imagine Dragons.

Being in the same business allows Dan and I to collaborate when we are home. We’re both very melodic and lyrical and we love bouncing things off each other and writing songs together because it comes very naturally. We don’t get to do it very often now, but when we do, it’s just so fun. It’s like a game. We have a side project that we did before Imagine Dragons really exploded, called Egyptian. All of the songs are love songs about each other and to each other. There are also some children’s songs that we’ve recorded that are online. Our daughter, Arrow, loves to listen to them.

I’m really happy with where things are with Nico Vega. My band mates Rich and Dan are like brothers to me. I think I’ve been really fortunate to be able to be a part of this project with them for so long. I hope it always supports us and always continues to move forward and grow and evolve at its own pace. We seem to come up with a new sound and that keeps it really interesting. Now that I have a daughter, my world doesn’t revolve around me



and my art and music all the time. I’m her primary caretaker, but we’ve really made it work. Arrow has done three or four U.S tours in her two years on the planet. She sings every song. She’s amazing, not even two and she has a catalog of songs in her mind. She knows every word to her dad’s songs and my songs, and she knows every Disney song. She’ll probably want to do something in music because she’s so rhythmic and musical.

**Music is healing. It is healing to listen to and healing to make. It is also a great way to express your emotions.** Music brings people together. It is medicine for the sick, and the suppressed. It brings freedom and happiness when those things feel difficult to attain. Listen to music that inspires you and it will be a good source of self-empowerment.

I am a firm believer that if you want something enough and you believe that it will come to be, there is a universal shift that happens and things fall into alignment. But you have to keep a very positive outlook and it’s hard to do that if there are things working against you. Ultimately, you need to get to that place where you just can’t be deflated and you believe in yourself so strongly that nobody can tell you otherwise. Then there is nothing that can stop you.

No matter what happens in the world, we will always need art and music. We need to create beauty in the world in order for the world to be beautiful. I try hard every day to be a better person, and performing and singing is the easiest way for me to give love to complete strangers. It’s very fulfilling, and I am grateful to my parents and friends for encouraging me, and believing in my self-expression. “



**“You are a particular kind of special, and sharing yourself with the world is very important. Nobody will create what you create, or express what you express. Be exactly who you are, and let yourself shine.”**



# MUSIC AT CLEVELAND CLINIC

A CONVERSATION WITH DR. IVA FATTORINI



Dr. Iva Fattorini chairs the Global Arts & Medicine Institute at Cleveland Clinic. Established in 1921, Cleveland Clinic a multi-specialty hospital, number one in cardiovascular, and one of the top four in the United States. Headquartered in Cleveland, Ohio, it has affiliated

facilities in Florida, Nevada, Canada, and Abu Dhabi.

Dr. Fattorini grew up and studied in Croatia before moving to the United States and joining the Cleveland Clinic in 2004. She says, “I learned, being an arts lover, that the arts can cross cultural and language barriers because emotions do not need any language translation.” One day she asked herself what was the clinic really doing in an organized, systematic way to integrate arts and make it a service.

She discovered that many physicians, employees, and patients were artists themselves. She says, “suffering causes anxiety and uncertainty with all those up and downs a hospital sometimes actually disconnect families and puts a big burden on them. What the arts does is reconnect people. It’s almost kind of a purifying process.”

But how to make the case for the arts in a hospital? She asks, “Why do we need to justify financially something that should be so logical and shows the maturity of a society, as caregivers and as humans?” Since healthcare systems are evidence-based and data-driven, she and her colleagues had to conduct a lot of research to prove the significance of bringing art as integral service to every hospital and healthcare setting.

**“Music therapy can be performing a song, singing together, using different techniques such as rhythmic oral simulations, for example, for patients who had a stroke, who need to learn how to speak. If a patient can follow the rhythm, then their brain can easily replicate the rhythm, and the patients can walk faster and walk better because the music tells the brain how to walk and what to do.”**

“The other big area of our work is art therapy, which is conducted by therapists trained to use expressive arts to help patients and families express their emotions they might not be able to express in any other way,” she says. Cleveland Clinic also has therapeutic music performances conducted in a public space. They don’t use speakers or sound enhancers. Sometimes vocalists perform, sometimes dancers, all in a subtle way that is in line with the flow of the hospital.

**“Sometimes what people do not think about is that maybe that piece of music or that particular performance or piece of art that they see in a hospital might be the last beautiful thing that they will see in their life, and that’s the reality. That’s the truth.”**



# TWENTY20

Twenty20 is a band of four boys in Washington, D.C. The band members are Hugo Carney (singer), Ben Froman (guitar), Lucas Donovan (bass), and Joey Doyle (drums). This is their story.

We chose the name Twenty20 because that’s the year we graduate, and we really like it because 2020 vision is perfect vision.

We’ve been together for a while and at first, we weren’t that much of a team and it wasn’t working as well as we had hoped. We realized we couldn’t collaborate together or be creative together if we didn’t consider every idea that everyone has. By immediately denying an idea, it brings down creativity. Working well together is most important. Then we became a true team and we wrote more music and sang more songs and it helped with make our music better.

We’re all skilled enough at our instruments and we’re good enough at music that if something doesn’t work, it won’t matter in the long run. Because the longer we play together, we realize that we don’t need to be stressed about making mistakes or messing up.

When writing music, a lot of times, one person has an idea, but that idea is far from the actual song. We have to fill it with the other band members’ ideas. Although somebody has the idea, it is definitely not their song, because it’s always everybody’s song.

We also feel that what’s good about our band is that we’re willing to admit, “Hey, I can’t go that high,” “that’s a little to fast for me or I can’t play that.” We don’t say, “Ah, you can play that.” We say, “Do you want to work up to that and try it?”

We like to write our songs about girls. Girls are our favorite subject. Our songs are not really based on anyone in particular or anything that has happened in particular, but if you listen to the lyrics, the subject is usually about a girl.

Some of our favorite moments thus far include seeing Paul McCartney in concert at the Nationals Park, seeing Green Day in concert at the Verizon Center, seeing Stevie Wonder perform at the Martin Luther King Jr. Monument, and seeing U2 in concert and having the opportunity to meet Bono.



# FAMILY ALL IN THE

with Pauline and Jason Yang

As recent immigrants from Taiwan to New York, their parents never had the opportunity to study classical music, but they opened the doors to it for Pauline and Jason Yang. At 13 years old, Pauline had a solo piano recital at Carnegie Hall. Jason, right after graduating college, went on a world tour with Madonna and his violin.

Pauline remembers her first piano. She was five when the family moved from New York City to a spacious New Jersey home, which was empty except for the Spinnet her parents had bought for her. “I fell in love with the piano right away and asked for lessons.” Two years later, she won her first international competition in Washington, D.C.

Jason followed his older sister and starting playing the piano before he picked up the violin as his instrument. Instead of sharing the piano, now they could team up. To take lessons in New York City, sometimes they had to scrape together coins from piggy banks to pay the tolls on the highway.

The same year that Pauline had her solo recital at Carnegie Hall, she entered the Julliard School at the Lincoln Center. She liked the teachers and fellow students, but it was the parents who made the atmosphere toxic. “They immediately think that you’re doing something extra and either paying a certain teacher to give you a certain opportunity to perform or that you’re finding other ways to win other than just based on merit at competitions.” Pauline realized she had to leave, even though she had won a full scholarship to



Pauline on the left, and Jason on the right

Julliard. Her parents understood and supported her decision.

At a music festival in Italy that summer, Pauline met Lee Kum-Sing, a renowned pianist and teacher. “I fell in love with his teaching from the minute I observed his lessons.” Excited, she called her mother and said, “I found the teacher who’s perfect for me.” Her mother wanted to know if Mr. Lee lived in New York City. “No, Canada,” she did not mention that he lived in Vancouver, almost a 3,000 mile drive.

Pauline’s mother finally went to Vancouver to meet with Mr. Lee, and soon, she too became convinced. Pauline was 13 years old and had to fly to Vancouver once a week alone, because otherwise it would become doubly expensive. At 15, Pauline began taking lessons from Susan Starr in Philadelphia.

Both Pauline and Jason attended the University of



Southern California in Los Angeles, a year apart, both studying music and politics. They became interested in international relations because their high school had a very strong Model United Nations team. Pauline got involved and Jason decided to follow in her footsteps.

Jason started out at USC as a double major in international relations and violin performance. However, he soon dropped violin performance because pursuing music can be high risk since most people don’t end up doing well. Once his junior year at USC rolled around, he launched his YouTube channel and people started contacting him for performances. “I decided to go into music and I struggled for a long time. It wasn’t until two or three years ago when things started to pick up and all my work that I had put into my YouTube channel and all the networking I had done over the years started coming together and then culminating in me going on tour with Madonna.”

The tour with Madonna started in 2012; they performed 88 shows in 29 countries and 65 cities. “Madonna and her music director, Kevin Ante, found me on my YouTube channel. She wanted a violinist on her tour. They found me and Kevin did a bunch of research about me before he contacted me and then a few days later, I went to Madonna’s home in Beverly Hills for an impromptu audition. I did not get a ‘yes’ right away. She invited me to New York to start rehearsals. So I had to prove myself. I loved touring with her and learned a lot from her, Kevin, and all of the other band members.” The tour lasted 7 months with 3 months of rehearsal before leaving on tour.

“I discovered that I don’t want to be just a violinist forever and now when I go to movies in the movie theater, I’m listening to all the music and how it works with the story and inspires it.” Jason now wants to score movies for Pixar or other animation studios. “It’s just a matter of taking what I learned and what I know and pushing into this other direction.” He smiles. “I’m sitting there as the credits are rolling and as soon as the screen pops up and says ‘Music By Howard Shore or Hans Zimmer’, the one thought I have is ‘How do I get up there?’”

Pauline is currently in a graduate program at the Fletcher School of Law and Diplomacy at Tufts University. “I like to combine both sides of what I’ve been studying to let people know that I’m both an artist and an aspiring diplomat.” She has fallen in love with the cultural richness of Boston, and is even looking a Ph.D. program. “There’s so much one can learn from the arts.” People always realize later on in life how great an impact learning an art form has had on their personal and professional lives. It should never be overlooked how much the arts can do for someone.”



# Finding Your Path

## A conversation with Donnie Kehr

**Do you come from an artistic family?** My mother, Delores E. Kehr, was a ballerina in the corps de ballet for the Ballet Russe, and later she started a ballet company in Washington, D.C. that taught 5 to 12 year olds ballets like Swan Lake and Don Quixote and The Nutcracker. My dad, Henry "Skip" Kehr, was a musician in the Navy band. My parents met at the Cherry Blossom Festival. They were doing a show. My mom was doing a performance with her company on a stage and the Navy band was also playing and that's how my mom met my dad. My older brothers are also into the arts. We had a band in the 80's called Urgent. We were on EMI Manhattan records and we did two albums for them.

**Who was your primary source of inspiration?** My mother. She put me in performing arts schools when we moved to New York City. When I was young I went on tour a lot, so I did alot



of my schooling at home or with a tutor. My mom made me take ballet because she said, "You need discipline and you need exercise and it'll also be good for you." At first I was not really into it, but I got really into it later. I studied for eight years at School of American Ballet and it helped me a great deal in my theatre work because I'm a triple threat: I sing, I dance, and I act. Actually I'm a quadruple threat because I play instruments.

I play four instruments: piano, guitar, drums, and bass. My mom got me piano lessons, which I only did for about two months. I remember my teacher sent me home with Chopin as the first thing I had to learn. I learned it very slowly because I couldn't read music well. It took me a long time to learn it but once I learned it, I started playing it backwards to try to find other ways that I could progress those chords of Chopin into my own piece. So it was more like: Okay, just give me the tools and let me run because I don't want to play other people's music. I'll write my own! My mom was not very happy with me about that. I still to this day don't read a note of music, but I can play four instruments with the best of musicians. Sometimes people who have talent take it for granted and think, "Oh, that's easy I can do that." But creative muscle is like any muscle

in your body. If you dance, you have to prepare and work to hit the step correctly, to do it right. Same thing with anything you do in an artistic way, you have to work those muscles to find the creative outlet, which you can really hit the moment that you're trying to do or paint that one thing that just finishes the piece. When I was 12. I booked my first Broadway show,

a play called *Legend* with Elizabeth Ashley and F. Murray Abraham. Then I got hooked on theatre. Even as a kid, most of my shows were Broadway national tours and such. I've made quite a good living in the theatre all my life. I toured with *West Side Story*. I toured with Joel Grey in *George M* (based on the life of George M Cohen). I toured with Aida for Disney. I was never alone. My mother or brother always went with me. Kids adjust or adapt easily, but it's very important for them to be with an adult.

When I was fifteen, I had the honor of meeting Fred Ebb. He is a lyricist of many Broadway shows like *Chicago* and *Cabaret*. He wrote the New York theme song, "New York, New York." He's an amazing lyricist. I did a show called the *Happy Time* for him, and he took to me, he guided me, he became my adoptive godfather. He came in and gave me advice; he led me down the right path and taught me what was right from wrong in how you treat and talk to people in life.

**Is there one thing in your work that you are particularly proud of?** *Jersey Boys* is very special. In 2004, I got a call from the director of *Jersey Boys* saying to me, "I've got something for you." The show at the La Jolla Playhouse became this big thing, and I knew it. I thought this is going

to define the next 10 years of my life, and I was right. When we came to New York and opened on Broadway, it became this huge thing. I left after 3 years to go do another show called *Billy Elliot*, which I was very passionate about. Later, I came back to do the tour for *Jersey Boys* for six months and while we were in San Francisco, Clint Eastwood

came to see the show, because he was going to do a movie version of it. Two weeks later, I got a call from my agent saying Clint Eastwood wanted me to do a screen test for the movie version of *Jersey Boys* and he ultimately cast me as Norm Waxman. I was shooting *Jersey Boys* at Warner Bros. and Mr. Eastwood came up to me and welcomed me. I told him my birthday is next week and I couldn't be happier, and I thanked him. He asked how old I was. I said, "I'm turning 50, I'm getting old." He took a few moments and then looked at me and said, "I quote 'don't let the old man in.'" That just stuck with me. It means no matter if you're a child who's been through a lot and you don't know if you can go on or continue. You know what, you have to continue because that's what you're meant to do.

**What else would you like to tell our young readers?** I think that what's missing in schools is the chance for kids to express themselves through



the arts. I think this is a big problem because I think the arts keep peace in the world. I think the arts make us grow as human beings. I think that children should create and find the arts in themselves by expressing themselves; be it through music, dance, painting, poetry or drama. If you find yourself through an expression of the arts or through the arts, hold onto it and love it as if it were a friend that would help guide your instincts to express your dreams. It's a good thing when you find your niche.

to **COMPOSER**

and **PRODUCER**



**Sam Hyken's Story**

When I was two or so, my parents had an inkling that I had musical talent. I had a toy that showed all the different instruments of the orchestra and I could identify all of them. My grandmother gave me a piano when I was four and from that day forward, even before having any proper lessons, I tried to play different chords and tried to figure out different types of lines.

In third grade, I started piano lessons, but with a jazz teacher. He figured out how to harness my creativity and didn't teach me piano in the standard way. He would write his own arrangements for me so I would stay interested and motivated. Then in the fourth grade, I started learning trumpet and that's when things really started to take off.

My grandparents were like second parents to me. We visited them almost every weekend and when I was developing my skills on the trumpet, they bought me my first professional trumpet and anything musical that I ever needed. My musical career would never have happened without them.

Wynton Marsalis, the trumpet player, made a big impression on me. He was

performing in my town with a jazz orchestra and they brought him to a master class at my high school. During the course of the class, he heard me play and in front of the audience. He told me I should go into music. "You have an attitude in your sound and you should be a musician," he said. It was the moment in my life that told me this was something I should do, that and getting into Julliard.

My experience at Julliard was mixed. I found it very tough to be an 18 year-old, living in New York City, and really expected to be a professional. It was very, very difficult. Musically there were some highs and a lot of lows. But while I was at Julliard, two things really kept me going. First, I was passionate about teaching beginning trumpet in the New York City public school system as part of a fellowship. That was incredibly inspirational. Second, I loved a community service fellowship that brought music to people who really needed it, in homeless shelters, nursing homes, and places like that. Those were really some of the best times I had while at Julliard.

I went to the Royal Academy of Music in London, England after Julliard and that was an amazing experience. I found the environment there much more supportive and my craft developed while I was there. It gave me a greater sense of confidence and immediately I started not only playing better, but I felt better. I had wonderful teachers who really helped develop

my artistry. After that, I moved to Singapore for a couple of years to play with the Singapore Symphony Orchestra.

The next important moment in my musical development was meeting Michael Tilson Thomas, Director of the San Francisco Symphony and the New World Symphony in Miami. We met at the Verbier Music Festival in Switzerland and I had such a powerful and extraordinary experience working with him, I told him I wanted to join him in Miami.

While I was at New World, I started writing my own music, and producing my own music, and discovering that there was a whole world of music that I really hadn't explored. I found as time went on that getting another orchestral job wasn't really fulfilling to me, so I decided to join a program at the University of Miami called Media Writing and Production. I learned how to be a producer and write for film and television. Since then, my composition career has really taken off. I'm now composer in residence at Miami Symphony Orchestra and I've had music played by orchestras all around the world.

I'm currently working on founding my own chamber orchestra in Miami; it's called the Nu Deco Ensemble. It's going to be what I call a 21st century orchestra, which focuses on innovative concert experiences and educational programming. It will also be a vehicle for community-based collaboration and also a leader in genre-bending musical exploration. It's going to be about a 25 chamber orchestra that plays music of all genres and brings children in for educational work-

shops and young composers for composition symposiums. I'm also involved with a program called Miami Music Project where I teach trumpet in underserved areas and I conduct my own orchestra in Little Haiti.

**I think you can't place a high enough value on musical education because it teaches so many different life skills. It teaches teamwork, community, social interaction, and math. And it develops all areas of the brain and all aspects of communication, especially for children who come from challenging home situations. It allows them to express their feelings through something other than verbal or physical communication. I think music is the universal language. We can communicate from culture to culture without miscommunication.**



# NEVER BE AFRAID

by Jessica Meyer



Music has been a part of Jessica's life from the beginning in Long Island, New York. "My father played guitar and sang, and we had a really big stereo in the basement. I remember my father playing and singing and I would be playing and singing, but what was funny is that

I guess I would just hear a lot of things by ear and then as soon as there was a piano around, I would go and try to figure it out." In fact, one day my kindergarten teacher was talking to my mother and she said, like, "You know your child plays piano" and my mom says, "What do you mean she plays piano? We don't even have a piano," and it was like, "oh no, she comes in every day, every morning, and plays songs from *Sesame Street* for us."

"In 4th grade, everyone got to choose what instrument they wanted to play. I asked to play the violin like all the other students, but the school had run out of violins. So instead, they said, 'You're tall, so we're going to give you the viola,' which is how I came to play the viola.

**"I remember a very clear moment when I was in 5th grade and we were onstage and we were playing 'Memory' from *Cats* and I was playing the viola and I knew exactly what I wanted to do the rest of my life. I really needed to play that instrument."**

At 18, she joined Juilliard where she met Ben, her future husband, made friends, and learned

from great teachers. "After Juilliard, Ben and I started building a life in New York and we were auditioning for different orchestras and then there came a pretty particular time where we realized that we didn't want to be in orchestras anymore. We started our own ensemble, I started a business where ensembles go out and play for certain events, but most importantly, I was a teaching artist at Lincoln Center."

"After working with Lincoln Center for a few years, I started taking it a step further where my ensemble would go into schools and write music with children and they would perform it."

**"Never be afraid to play. Don't be afraid to make mistakes in art because that's how you get better at something. Art is not about right or wrong. It's just about choices; choices of color, sounds, lines, words, or images. You don't have to be 'good' at art to participate. You just have to make something and then it becomes unique"**



**Oran Etkin** is a jazz musician and teacher in New York City. Born in Israel, he grew up in Brookline, outside of Boston. When he was five, he started playing the piano and then the violin. In fourth grade, he picked up the saxophone, and that stuck with him. When he discovered Louis Armstrong, everything changed. "It was the first time we had a CD player in the house. I absolutely fell in love with Louis Armstrong's album." This love only grew with time. "I became obsessed with his music and other musicians from New Orleans. That's pretty much all I listened to for five years."

Oran attended an arts summer camp where he his teacher taught him to improvise like jazz musicians. He soon joined a band with kids from different schools, mentored by Bob Christman. "Both he and Yuval Ron, my teacher from summer camp, helped me understand music a lot, but they also helped me understand myself and believe in myself - that I could be a musician, that I could express myself just like all these great musicians that I was listening to."

Oran's parents finally took him to New Orleans to explore the music scene there. Now he was more excited, looking for every opportunity to explore music. In high school, he took lessons from George Garzone, one of the best saxophonists in Boston. "I would go

to his office at the Berklee School of Music (a college in Boston) to take private lessons with him before I would go to school. I would wake up early and be at Berklee at seven in the morning, take a lesson, and go right to school."

After high school, Oran attended Brandeis University. He pursued a double major in economics and music. He then joined the Manhattan School of Music where he earned his Master's degree.

Oran has created "Timbalooloo," a unique music education program for children. Music for him is a language like any other which children can learn naturally and fluently. The Timbalooloo curriculum humanizes each instrument, so kids could become familiar with each instrument as they would a new character in a story. The instruments are brought to life, and they speak through their music. "When you listen to Louis Armstrong, it really doesn't sound like he's playing notes from a page. It sounds like he's making the instrument come to life. He took an inanimate object, a piece of metal, and he made it talk. He made it laugh, cry, and express itself."

Visit Oran at [www.oranetkin.com](http://www.oranetkin.com) to learn more about Timbalooloo.

# HELPING PEOPLE SEE THROUGH

# MUSIC

## Professor Kimberly McCord

Have you ever heard someone says, “Take two aspirins and call me in the morning”? Doctors used to say that when people would call them and complain about a headache. Usually a headache will go away with an aspirin or two, but creating, performing or listening to music might work even better.

**Music therapists and other professionals who use music to help people feel physically or emotionally better have discovered that music often helps people as much as medicine or traditional mental health therapy.** For example, children with severe autism often have difficulty looking other people in the eye. As you can imagine, it becomes very difficult to make friends or to pay attention to teachers if you have trouble looking at someone’s face. Think of being a young child and being at school when a teacher reads a book to you. Usually all the other children are seated on the floor so they can see the pictures in the book. When someone is learning to read, pictures in picture books help to follow the story. If the teacher is holding the book up close to her face it makes it hard for the child with autism to look at the book. When everyone is looking at the same thing, it is called joint attention. Joint attention is important to learn and function in the world.

Music therapists have discovered that children with autism will look at other people’s faces if a musical instrument is used. Musical instruments help children

with autism maintain joint attention better than anything else. So instead of the teacher showing a book and reading a story, the teacher could sing a story and play along with a guitar to maintain joint attention. Children with autism learn the song and they are able to learn with all of their typical peers (students without disabilities). It is really great when children with disabilities can be with their other peers that are the same age. Music, and especially instruments, are so exciting it helps the child with autism focus on what everyone else is doing.

Have you ever felt very sad about something going on in your life? Do you have certain songs you listen to or do you sing or play an instrument to feel better? This is very common. If you think about it, just about every type of important celebration (birthdays, holidays, weddings, and even funerals) have music that is associated with the event. There are probably certain songs you know of that your family and friends sing or listen to for celebrations and just thinking of them makes you happy.

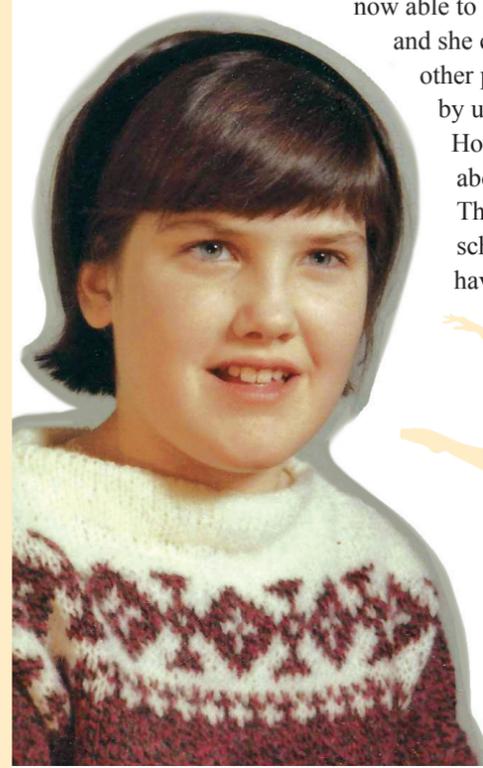
Music therapy has also helped people who become very depressed or anxious. I can think of a twelve-year-old girl I know who becomes so depressed she cries and sometimes has trouble getting out of bed to go to school some days. She is a very fine musician and as long as she has time every day to

play her guitar, she tends to feel happier and doesn’t become so depressed. When she has too much homework to do or she is too tired, she doesn’t have time to play her guitar and sometimes she becomes very sad and depressed. **Music helps her to feel better.** She is happiest when she is with her musician friends playing music in their rock band.

**Music memories and training exist in different parts of the brain.** Brain studies have shown that when people are being musical or just thinking about music, their brains show more activity than anything else you can do. Sometimes people with brain damage that affects their speech can learn to speak again through singing. Congresswoman Gabby Giffords was injured when she was shot in the head several years ago near Tucson, Arizona. Speech and music therapists were not able to fix the part of her brain where language and speech normally reside, but the part of her brain that controls music was working just fine. Congresswoman Giffords was able to sing even though she was unable to talk. The therapists then worked on helping her learn to speak again by using her music brain.

Imagine wanting to tell people who helped you through a life-threatening event, like a shooting that you love the. She couldn’t do it. It was very frustrating. But she could tell her husband and others that she loved them by singing to them. The therapists trained her to use singing and eventually take out the changing pitches so she could sound more like she was talking. It worked! She is now able to give short speeches and she can communicate with other people much better by using her music brain.

How do you find out more about music therapists? They work in hospitals, school districts, and many have their own private



practices. A professional organization in the United States for music therapists is called the American Music Therapy Association (AMTA), and you can go to their website and learn more about music therapy. There are videos that show music therapists working with clients or people who are having music therapy to help them to feel better.

In the meantime, you can practice music therapy on yourself or on other people who need help to feel better. Do you have your favorite recordings somewhere easy to access? What music cheers you up? What music calms you down?

Elderly people with dementia or Alzheimer’s disease often respond well to music and are frequently able to remember favorite songs and join in with singing even when they struggle to carry on a conversation. Visit retirement homes and offer to sing to residents. A great website to look up popular songs from decades past is PopularSong.org. If you want to learn popular songs to sing to people in their seventies through nineties, you can find songs from the 1940s that were popular and sing those with the elder. You can also play recordings and dance or do movement that the person can copy. Dancing or movement while listening or singing engages a large part of the brain.

**Whether a person needs music therapy or not, everyone loves music. If you play an instrument or sing, share your talent with others and spread joy to others. It works better than a smile and it lasts longer!**

Dr. Kimberly McCord is a Professor of Music Education at Illinois State University.

# CROCK & VOLE

by Bernie Krause, PhD



**What do whales, frogs, insects, robins, crocodiles, chimpanzees, and tiny larval organisms have in common?**

Would you believe they are all part of a very large animal orchestra that may

our voice doesn't fit. It would make the other singers in the choir uncomfortable. Eventually, if we don't learn to sing the right notes, we'll be asked to be quiet or leave—hopefully in a very nice way. In the still wild forests of the world, it is the same for animals. They have to find a clear acoustic channel so their signals can be projected and heard. Birds, insects, and even monkeys all have the same problem. When these wondrous creatures need to effectively communicate, they must learn to use their voices in a way that blends in with the other animals—just like singers in our musical choruses. Except that animals evolved to vocalize in their specially structured ways first and we learned our blending, melody, and rhythm lessons from them only much more recently.

Take the common potoo (pron. PO-two), for instance. This awesome bird can be found in rainforests stretching from Costa Rica to the Amazon. He is unusual because he is capable of whistling a tune that sounds much like a flute player playing the blues. And it's such a pretty sound. Over time, the bird learned to sing these notes in a way that communicated

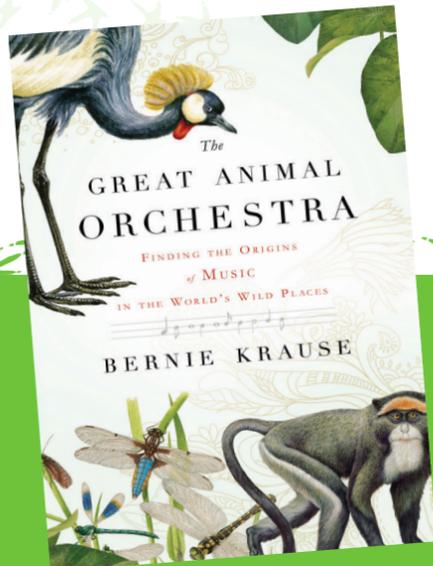
lots of useful information to the other creatures living nearby. One amazing example if his song was appealing enough, he would be able to attract a female to become his mate. He was also telling other birds just like him that the tree he was singing in was his tree and no one else's. Most important, the potoo learned his song so that it would fit with the voices of all the other sound-producing insects, birds, frogs, monkeys, and jaguars that vocalized in his forest home. Over time, his voice became part of a creature chorus where it would blend with all the vocalizations in a harmonious balance and no one else's sound would get in the way of his. You see, when all of these creatures sing together at sunrise, in the evening, or even during the day, they form a collective and resonant choir so special that even people like us haven't been able to generate music that is quite as breathtaking.

Sometimes they raise the pitch of their voices higher or lower. Sometimes they lengthen or shorten the thematic material of their songs so that it is different than it would be in a forest. But, like us, all living creatures want to thrive. And if their lives hinge to a degree on their vocal expression, then their voices must be intelligible.

No matter where we live, as long as we find some way to stay closely connected to the land around us, like the sound of wind in the trees or grasses, the voices of birds, coyotes, foxes, deer, insects, and frogs—every one of these and all of them together can influence the creation of our music in very special ways. This is just one more wonderful common bond we have with the natural world and one more reason that we need to work very hard to remain linked to that part of our beautiful planet.

very well be the origins of our music?

Everyone knows that in order to be heard, humans have to speak or sing in a way that other people are able to hear what we are communicating so we can be understood. If disruptive noise in the background is too loud for those receiving the information projected through our voice, then it won't be perceived. It's covered, or masked. If we're singing in a group or chorus and we hit the wrong note, everyone else would look at us suspiciously because



This summer, get up just as it is getting light and open up your window. See if you can identify what birds, insects, or amphibians you hear by sound alone. Maybe, if you have a small digital recorder— you don't need anything fancy— you might want to record them so you can listen, again at another time. Then later in the day, as traffic outside gets heavier and human noise increases, make another recording and, on to playback, try

Although many species of birds cannot raise the volume of their voices very much, they do find ways to change their songs or calls so that their messages won't be lost.



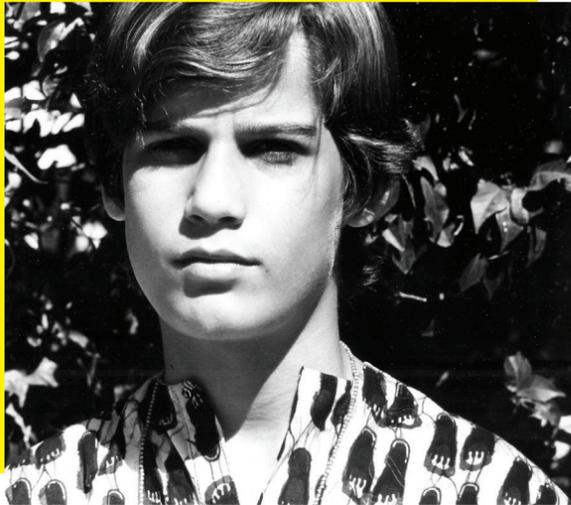
**No music is prettier.**

pick out the bird, frog and insect sounds out of the background noise. In particular, listen to the difference between the bird sounds when it's quiet outside and when it gets noisier. Do the same in the evening, first as folks are coming home from work and then after everyone has gone to bed and it's a little quieter outside. Describe how they differ.

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Since 1968, Dr. Krause has traveled the globe to record, archive, research, and express the voice of the natural world, its soundscape. To listen, please visit [www.wildsanctuary.com](http://www.wildsanctuary.com).

# Music & Mathematics Cosmic Twins

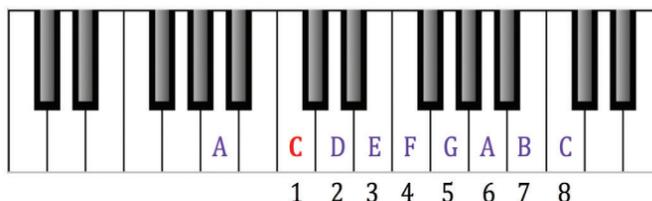
Harlan J. Brothers



It turns out that melodic instruments, like the guitar or flute, make the surrounding air vibrate in a very orderly pattern. Each note is actually a whole family of vibrations with a primary vibration that we call the pitch. The frequency of the primary vibration is called the fundamental. We'll abbreviate it with the letter  $f$ .

Looking at Figure 1, the note A below middle C on the piano has a fundamental of 220 hertz (abbreviated "Hz"). That is, when you play the notes, it makes the air vibrate 220 times per second. It also makes weaker vibrations at 440 Hz ( $2 \times f$ ), 660 Hz ( $3 \times f$ ), 880 Hz ( $4 \times f$ ), 1100 Hz ( $5 \times f$ ), and higher. As we see, these additional frequencies are all multiples of  $f$ . They are called harmonics and their relative strengths are the main reason we don't confuse a bagpipe with a banjo. For reference, youthful human ears can hear frequencies up to about 20,000 Hz.

Unlike melodic musical sounds, random sounds and noises lack this orderly structure. We see that the very fact of being a musical sound corresponds to an underlying mathematical pattern:  $\{1f, 2f, 3f, 4f, 5f, \text{etc.}\}$ . So, what can we do with the math-based, musical sounds we call "notes?" We can build musical scales. Every scale is defined by numbers. In Figure 1, a section of the white keys on the piano is numbered 1 through 8. These correspond to the C major scale: C, D, E, F, G, A, B, followed by C again (where the scale repeats). The distance between any two of the same note, like from C to C, is called an octave. Musicians often refer to notes using their numbers. For instance, the note E is the "third degree" of the C major scale.



starting on any note. The rule is based on the division of the octave into 12 equal parts called semitones. A semitone is the distance between any two adjacent notes on the piano. Mathematically, a major scale can be represented by the pattern of semitones  $\{2, 2, 1, 2, 2, 2, 1\}$ . Start on any note and count up according to this rule and you will produce a major scale. For comparison, the harmonic minor scale is defined by the rule  $\{2, 1, 2, 2, 1, 3, 1\}$  and the pentatonic scale (from the Greek prefix "penta," meaning five, and "tonic," meaning tone) is defined by the rule  $\{2, 2, 3, 2, 3\}$ .

There are a number of scales we can construct using such mathematical rules. Nicolas Slonimsky's 1947 book, *The Saurus of Melodic Scales and Patterns* lists more than 1,350 different patterns, many of them mind-boggling even for accomplished musicians!

Knowing how scales are made, let's take the next step and construct chords (three or more notes played at the same time). Three-note chords, called triads, are built by using every other note in a scale. Looking again at Figure 1, the chord built on the first note of the C major scale is made up of notes 1, 3, and 5 (C, E, and G) and is called a "C major" chord. The chord built on the second note of the C major scale contains notes 2, 4, and 6 (D, F, and A) and is called a "D minor" chord. For every scale, an incredible variety of chords can be constructed by using patterns of note numbers.

It's important to point out that the semitone-based scales we are talking about belong to the tradition of what we refer to as Western music – music that has its origins in Europe. Other cultures divide the octave differently. For example, much of Middle Eastern music uses an octave that is divided into 24 parts.

We've learned about the mathematics of notes, how scales are constructed from notes, and how chords can be constructed from scales. There are many other important aspects of music such as rhythm, meter, harmony, counterpoint, and song structure that are deeply rooted in mathematics. It's also worth mentioning that if you use a software audio player that has a song visualization module, the animation you see is based on mathematical information that reflects the frequency content and the changing volume in a song. We've discussed the mathematical nature of music. How about creating music from math? Countless books, articles, and research papers have been written on the subject. In fact, for centuries, mathematical techniques have been used by famous composers like Bach and Mozart

to help develop their ideas or establish the structure of their compositions. The dawn of the computer age opened a whole new era of composing based on mathematical rules, assigning pitch values, note duration values, and volumes to numbers generated by specialized programs. This type of music covers an extraordinary range of styles and is generally referred to as algorithmic composition.

Even without a computer, you can convert numbers directly into music! For instance, we can extend our C major scale in Figure 1 up two more white keys and assign the numbers 0 through 9 to those ten notes. We can then read the digits of any number and play the note corresponding to each digit. If we use first eight digits of the never-ending constant  $\pi=3.1415926\dots$ , we obtain the melody  $\{E, C, F, C, G, D, D, A\}$  (notice that the two D notes are an octave apart). Here is a link to a cool example of this approach called "What Pi Sounds Like": [goo.gl/gBKQaB](http://goo.gl/gBKQaB).

More sophisticated techniques are also possible. For example, here is an animation of a composition called "100 Seconds of Pi": [goo.gl/PKfBYV](http://goo.gl/PKfBYV). It shows the result of using math to analyze number-derived music and turn it into graphics. In this video, we can actually witness the cosmic twins in action – math is transformed into music we can hear and, from music, back into math we can see!



The connections between mathematics and music run deep. The subjects can be thought of as cosmic twins, born out of a tantalizing mixture of order and disorder. They both grow from foundations that are built on patterns: patterns made up of repetitions, ratios, number sequences, geometrical transformations, symmetries, combinations, variations, and more.

Music is at its core, based on numbers and mathematical relationships. By the same measure, numbers, and mathematical relationships can be transformed into music. With so many connections, we can only touch on a few important links and hope that you will continue your own exploration of this fascinating subject.

## Musical Sound

On the most basic level, musical sounds are not just "any ol' sounds." The screeching of car brakes, the rustling of leaves, or the thud of a book bag on the floor are not what we generally think of as being musical. So, what makes a sound musical?

# Music as Medicine

a presentation at the 2015 World Children's Festival

By Dr. Vikram Parlikar

I am from Mumbai, and music is a way of life in my family. Music in India evolved over thousands of years. Gurus trained me in Indian classical music, and today, I am a music therapist. I wish to bring peace to the community because music gives me my personal peace.

Songs are composed in a very scientific way. Every melody is based on only 12 different notes - seven pure notes and five altered notes. Various combinations of five to seven of these notes create different melodies which our ears find appealing. In India, this melody is called a raga.

Ragas have the powerful ability to bring about positive changes in living beings. Music brings the mind and body to a state of harmony. When we face challenges, we must use coping mechanisms to deal with negative energy. One way to cope with negative energy is to listen to music. Like medicine, music can heal. Specific ragas are chosen to cure negative feelings based on personality of the patient, time of day, and season of the year. Music can help individuals overcome anger, fear, and stress.

Being angry hurts ourselves, and it can also hurt the people around us. This feeling manifests itself differently in every person. One who is angry may experience an increase in blood pressure or a jump in heartbeat. You can try to control your anger by concentrating on your breathing pattern, channeling your energy into an activity you enjoy, or listening to your favorite music. Ragas that control anger and bring peace to your mind are Ragas Vibhas, Parmeshwari

during the morning, Ragas Bhimpalasi, Gawati, Marwa, Puriya Dhanashree, and Bhup in the evening.

Another negative emotion is fear. Each person has unique fears. Some people are scared of certain animals (like snakes), public speaking, or failure. You must overcome your fears and not allow them to prevent you from achieving your goals or enjoying life. Music can help you face your fears by bringing you to a calmed state and enabling your inner poise and bravery. You can then deal with fear in a composed manner. Ragas Ramkali, Bhairavi in the

morning, Ragas Pat-deep, Multani, Puriya, Pahadi, Madhukauns, Kedar, Bageshree, Chandrakauns, BhinnaShadja, Durga, and Shivranjani in the evening.

Music can also impact stress. In today's competitive world, the challenges we face bring stress. Our stress levels affect

how we react to our environments. Sometimes stress can be good, for it can push you to reach astonishing achievements. However, too much stress is not healthy for your body or brain. Music therapy aims to relieve stress and pave the way to happiness. During the morning times, Ragas Ahir Bhairav or Lalit are effective. Ragas Yaman, Bihag, or Malkauns during the evening, and Ragas Darbari or Sohni during night are the best.

I hope that this world will one day harmonize. Each time somebody reaches a personal peace, we are one step closer to world peace. Music therapy can guide you to a tranquil state of love, and you can be a part of this peace through music movement.



# HOW TO: BREATHE

When you breathe in and speak, air passes through your vocal chords to create sound. Your lips shape this sound to create words. Did you know that there is a correct way to breathe? You can learn to control your breathing to optimize the way you sing and speak.

Our breathing patterns are naturally correct when we are born. As infants, we use our lungs without conscious thought. Children have soft high voices that are smooth. Older people often have deeper voices that can be crackly or raspy. Over time, our vocal chords age. We may become lazy and develop bad breathing habits that affect our sound. A common habit is relying on only the upper part of the lungs and therefore taking shallow breaths.

You must take care of your vocal chords in order to retain your natural, healthy voice. To correct your breathing, there is an amazing breathing exercise called the Apple Exercise. This exercise is all about understanding how your body behaves when you breathe.

To begin, extend your arms as far as you can to the sky. Pretend you are reaching to grab an apple from a tree. Make sure your feet are squared with your shoulders and planted firmly on the floor. This will open your ribs and lift your diaphragm and tummy so that you



can accept a big breath. Through your nose, inhale slowly and powerfully.

Breathe in as much air as possible. The goal is to fill your diaphragm, your chest, and back, and up to your collarbone and your head. To fill these chambers with air, you need a lot of practice with slow concentrated breaths. Now hold your breath and slowly bring your arms down while keeping your

ribs open. Then, steadily exhale, releasing the air from all three chambers.

Once you have perfected a smooth exhale, focus on mastering the movement of your ribs by trying to flex them. This exercise ultimately aims to improve your breathing and expand your air capacity.

The Apple Exercise should be done at least 5-10 times per day. You should practice in front of a mirror, so you can observe how your body moves. You can also put one of your hands on your side to feel how your ribs expand and change. Practice this exercise when you raise your hand to answer a question in school, on public transportation

when reaching to hold on for balance, or even when you grab something from the top shelf in the kitchen.

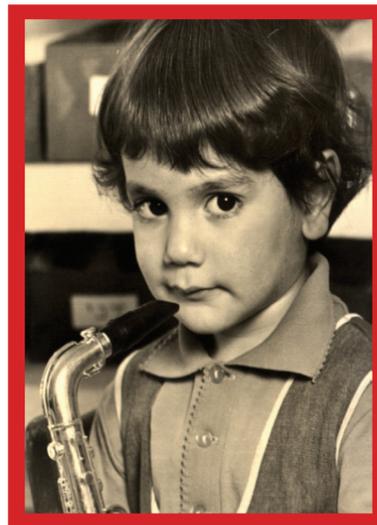
**Happy breathing, happy speaking, and happy singing!**

Sofija Knezevic is a jazz vocalist and teaches at the Music School of New York City.

# MAKING OF THE WORLD CHILDREN'S FESTIVAL VIDEO

A Conversation with Guy and Gilad

When you watch the music video of the 2011 World Children's Festival, it inspires you to make music and change the world. The video was filmed by Guy Frenkel, who lives in Los Angeles, and its music was composed by Gilad Benamram who lives in Tel Aviv. They were partners in Melody Street.



Guy says that each day of the festival was packed with endless numbers of groups and kids from different countries. It was physically demanding, but, at the same time, it was three of the most magical days that I've ever experienced shooting because of what I got to

shoot. I mean, how lucky could I be where these beautiful, amazing kids, each one from a different culture and a different point on the planet, come and present the unique and beautiful art of their country? Being able to experience such a variety and such an eclectic group of beautiful kids really gave me a lot of energy. I was thinking that we would shoot a lot less, but we just couldn't stop shooting because we were a) having so much fun and b) the footage was so beautiful and the kids were so beautiful and the music they were making was so beautiful. The festival was this harmony and celebration, and so

I couldn't rest. Every time we thought, okay we'll take a break, somebody else came along and we had to capture it. It was too magical not to capture, so we just kept shooting. It was a lot of fun, and we thank the ICAF for that.

The editing in this unique video was musical editing. Therefore, most of it was done by Gilad. We had a vision. We wanted to make the kids all play together; in order to do that, we had to fit them on appropriate tempos and playing the right pitches. We decided not to write anything in advance. Instead, we asked everybody to play what they came there to play; their native music in their native keys and native tempos. Then our job was to try to break it down to the smallest building blocks of each performer. Whether it's four bars of a bass line or a riff of a drum or on the guitar or a whole orchestra on stage playing together, he had to break it down to manageable pieces and then build a puzzle that works with each other. Then, I took what Gilad did and brought the images to support it.

Gilad says this specific process is a bit different than composing regularly because we had a bunch of short pieces of music on completely different instruments from different places in the world. They were not playing together, so we had a bunch of musical lines either rhythmic or melodic. It was basically like making a puzzle and making sure that it's built correctly, so that it supports the piece like we do when we compose music. The rhythm makes sense and the different players support each other to make one grooving, happening rhythm and then the base and the harmony and the melody is on top of it.

Guy adds that there were really no expectations on what we had and there was nothing specific that the piece had to be other than what it wanted to be. We were exploring, finding the beauty, letting go of the things that don't fit and keeping things that do, and seeing where the music takes you.

Today, Gilad is involved in a few other musical productions and working with some artists in both the U.S. and Israel. He's still scoring films, writing original music scores for feature films, and doing a couple of new TV shows. He came to music at a very young age and was classically trained in the organ.

"I think that around eleven or twelve, I got a little bored with it, and I discovered the guitar and the distortion and the whole more interesting, devilish aspect of music. At the age of thirteen or fourteen, I started playing rock and roll music. I had a band; we performed for many years.



It was a kind of a heavy metal music, so I started from studying classical music as a younger kid through a little bit of flamenco and classical guitar to the distortion,

heavier rock and roll sound that carried me probably until my twenties and somewhat of a young rock and roll career. I stopped it to join the army at the age of eighteen, and from that point on, I was left singing and performing and writing music, and I started writing music for plays. I worked as a young composer here in Israel with a school of actors. They put on end of the year shows and I used to do the music for it. This got me very much into studying composition, and then at 22, I moved to New York where I studied composition at the Manhattan School of Music."

Guy is a story-teller and is writing stories for children and grown-ups, and designing toys for kids. While studying at the School of Visual Arts in New York, he started making movies, and Gilad scored his movies. They graduated, moved to Los Angeles, and continued to work together on projects, such as the 2011 World Children's Festival.

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You can see the video at [www.youtube.com/watch?v=9aXKShuN1EY](http://www.youtube.com/watch?v=9aXKShuN1EY).



# How to Write Lyrics

You can write your own song to express your feelings of sadness, anger, or excitement, and communicate with your friends or peers. Here are a few tips on writing lyrics:

**1. Bring a journal wherever you go!** Inspiration for songs can come from anywhere, anytime. Make sure you capture those moments of imagination in a journal so you can write lyrics with those ideas later.

**2. Do not worry about rhyming. Lyrics and poetry are two different things.** Rhyming only the vowel (such as time and write) or not rhyming at all is fine for lyrics. It is more important that you say what you are feeling. A song that tells what you are feeling is a good song because it lets other people share your feelings and helps people connect with you.

**3. Pick out a title. The title is the theme of your song or a phrase that appeals to you.** The title can be the first thing you think about when writing a song because then all the lines will follow. To make your title into a song, ask yourself what that phrase really means to you. How can you relate to the word in your title? Then answer these questions with the lyrics. Songwriting requires that you explore your feelings. You can learn a lot about yourself through writing lyrics. Sometimes you will write the lyrics to a song because what you are feeling is strong and you will be able to create a title from the words you already wrote down. Don't worry about which comes first--the lyrics or the title.

**4. Find a song with the structure you like, and then use it as a model for your song.** Different songs use different structures. Some use AABB form: Every two lines rhyme with each other, e.g., lines 1 and 2, then 3 and 4, and so on.

Up above the sky so high  
Like a diamond in the sky



Others use AXAX: Only the second and fourth line rhyme, like in this song by Beach Boys

Wouldn't it be nice if we were older  
Than we wouldn't have to wait so long  
And wouldn't it be nice to live together



In the kind of world where we belong.

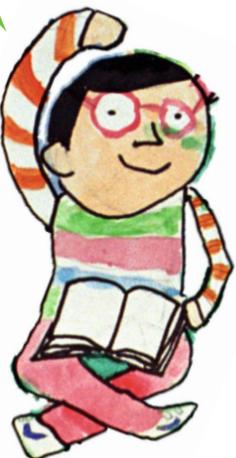
And if your song does not have a rhyme scheme--that is fine too. There are no rules to songwriting--only guidelines. Make your voice heard! Write a song today!

## Examples of lyric: Two ICAF Youth Board Members

Philbert Tiki Yong in Malaysia says, "I used to play the violin when I was a violinist with the Malaysian Philharmonic Youth Orchestra. Although this was my first time writing lyrics, it gave me the opportunity to express my thoughts in the form of music. It is a good form of cultivating creative thinking skills, too."

### PEACE

Come let us live together,  
Come let us live in harmony,  
We should care for one another,  
For we are one big family.  
We should stand united,  
In times of good, and in times of bad,  
Let our differences be disregarded,  
Because everything is to be shared.  
Lend a hand into helping,  
Those in need for love,  
Because passion, and understanding  
Are the virtues for peace on Earth.



### MESSAGE FOR OUR HEARTS

It's not normal ... everyday you hear about fights and crimes  
It's just ... think about butterflies. They have only one day but they enjoy life like nobody else.  
I know a hurricane can't be stopped  
Or passing of time, it can't be blocked  
I don't want you to get me wrong  
I don't wanna change the world  
I just wanna make you smile again  
Tell me I love you and give me your hand  
And then watch how the sun goes down  
Simple things but also so far.  
Don't you feel sometimes that you need  
Only one day without clouds and rain  
We don't need a hero or revenge  
We want ... just a little change



## Music After Hurricane Katrina

As the birthplace of several musical genres, and most famously jazz, New Orleans is the musical heart of America. Sidney Bechet, who was known as the king of the soprano saxophone, once described New Orleans as "a place where the music was natural as the air. The people were ready for it like it was sun and rain ... It was like waking up in the morning and eating, it was that regular in your life." Music has become so embedded in New Orleans's culture that they even have jazz funerals, where musicians play sad music on the way to the cemetery and lively jazz on the way back.

But on the morning of August 29, 2005, the music stopped as Hurricane Katrina tore through the city. Fifteen hundred people died in the hurricane, ten thousands of houses were destroyed, and people lost all of their belongings and valuables. Artists immediately started writing, recording, and releasing music inspired by the tragedy. In their lyrics and music videos, they expressed anger and frustration with the government, but the songs also gave hope that

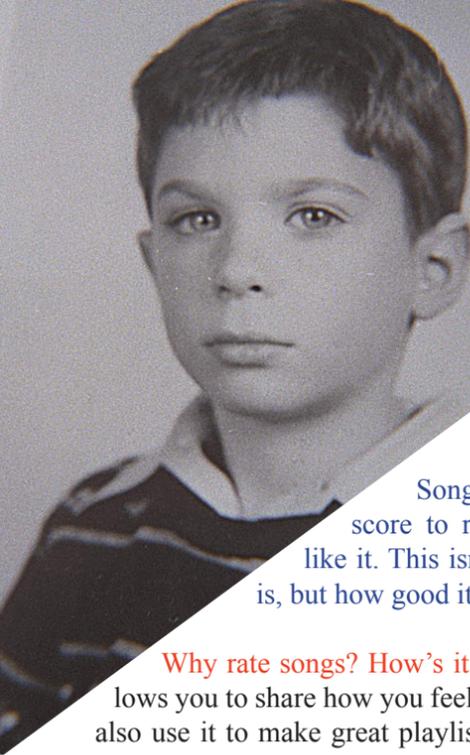
their city would make it through the disaster. Musicians filled the city streets, bringing people together to celebrate New Orleans's unique cultural heritage.

Music also brought in the much-needed financial aid. Musicians raised money through benefit CD compilations, concerts, and donating their own money to help victims of the hurricane. Singer John Mayer said, "We, as musicians, get to be the medicine men for a minute."

Today, once again jazz guitarists are living across the street from R&B musicians, who are living next to blues singers. Music helped the city's emotional and financial recovery. The people of New Orleans carry on with a sensibility typical of their Crescent City. This attitude could perhaps be best described by their famous jazz funerals. They can look death straight in the eye and party anyway. For them, death is intertwined with the celebration of life, and the people of New Orleans know better than anyone else that life moves forward and music goes on.

These artworks by Katrina children are from the ICAF Healing Arts Program.





# What is Song Rating?

by Michael Sussna, Ph.D.

Song rating gives a song a score to reflect how much you like it. This isn't how good the song is, but how good it is for you.

**Why rate songs? How's it done?** Song rating allows you to share how you feel about a song. You can also use it to make great playlists. To rate songs, the first step is to decide how much you like a song. It could be a little, more than a little, or a lot. Some music players like iPods and other mp3 devices allow you to give songs ratings from zero to five stars.

**How accurate is a rating?** Initially, a rating is an estimate. You can improve your initial rating by listening to the song along with others that have the same rating. After, you may need to move this song to a lower or higher rating.

**What if a song varies in quality from one part to another?** One approach is to use the average quality, but it may be better to rate the song at the quality level of its lowest part. It may not fit well with songs rated at its average quality.

**How do you make playlists using more than one rating?** Start with the lowest rating you want to include. Follow that with the next higher rating, and so on up to the highest rated song. This builds the experience up to a great finish. You can do this with any type of playlist.

**What are good playlist themes that use ratings?** One theme is a playlist by artist. Another is a playlist by rating. A playlist by artist emphasizes the artist, using ratings to build the playlist. A playlist by rating emphasizes the ratings themselves.

**Can other themes be used?** There are actually an unlimited number of possible themes. For example, you could make a playlist of songs that have colors in

their titles. Finding them all might take some work, but you could still order them by rating. Theme choice is limited only by your imagination.

**How else can I organize my playlists?** You can also sort the songs by title within a rating. When more than one artist is involved, this naturally mixes the songs.

**Are there other uses for song ratings?** You can come up with a rating for a whole album. The easiest way to do this is to find the average rating across the album's songs. You can also do this for all of the albums by an artist. This shows you the artist's evolution and allows you to compare artists.

**What's does an artist's evolution look like?** Robin Trower is a blues-rock guitarist with a long career. As you can see, he started strong, peaked in 1977, and then had a few high points later. The 1977 album, *In City Dreams* has five 5-star songs and two 4-star songs. These songs are beyond masterpieces.

**What are weighted ratings?** It is useful to give ratings a number of points to show their value more clearly. Instead of using the number of stars (1,2,3,4, and 5) as the points, you could use 1,4,9,16, and 25 points depending on the rating. This is a "weighted rating" for a song. *In City Dreams* gets 161 points over its nine songs for an average weighted rating of 17.89.

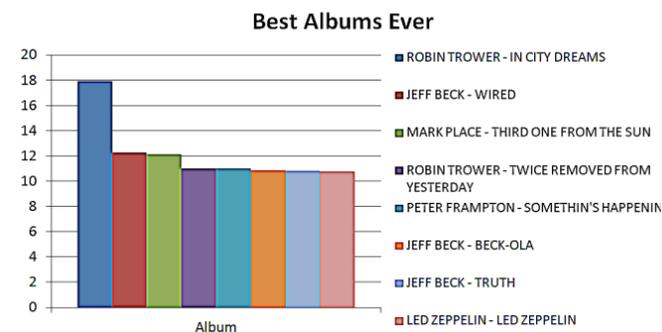


Figure 2 - Albums with an average weighted rating of at least 10.5.

# MAKING NOISE

**I have always liked making noise. A lot of noise! The louder the better! Who would have guessed that making noise could be a way to make a good living and see the world?**

My ear was always looking for those unique combinations of sounds in different spaces with all sorts of instruments or materials. There was a saxophone player who would play underneath a bridge in a park in San Francisco. Not only could you hear him for what seemed like miles because the tunnel naturally amplified the sound of his saxophone, but he used the tunnel under the bridge like an extension of the instrument and timed the very difficult and unusual scales that he would play to take advantage of the echo.

As a young adult, my wife and I saw a performance of the Bach at San Francisco's Grace Cathedral. The cellist played an instrument that had been made in the 1700's and did not use a sound system even though there many people there. It changed my life when I realized that all of those years of being played by very talented musicians had given that cello a sound that could not be duplicated by a new instrument. It inspired me begin to look around, and as I did, I began to realize that the most valuable violins, violas, cellos, guitars - even speakers and microphones - were old, not new! It was a revelation to me that the vibrations of sound that I so loved to feel and listen to as they resonated in a space also resonated within the materials of the instruments and that made them sound better and better over time.

I began my career recording music in a studio, creating sound

effects for cartoons, mixing the sound for bands when they would play live music, and playing in a band myself. What I eventually realized I liked to do most was to design and build the speaker systems in big places like stadiums and arenas.

I was very fortunate to be able to work in a really big stadium in Ann Arbor, Michigan - the biggest American football stadium in the world! I got to be in charge of the team putting all the speakers together. We fired a small, but very loud cannon and recorded what happened using microphones. With a computer program and that information, we could see what would happen when you put a loud sound in the stadium. That is called measurement and prediction, and it is one of the important tools we use when designing spaces and sound and speaker systems.

Now I get to work on all kinds of different spaces and sounds, all over the world. These projects have taken me to Japan, China, Singapore, India, and lots of other places. I still listen closely for what a space sounds like, and I still love to make a lot of noise.

If you like acoustics, architecture, and sound, the best way to get started is just to get in the habit of listening to everything around you. As you go through high school and college, you can start learning about music theory, electronics, computers architecture, and physics.

The technology keeps getting better and better. Who knows? In 30

years, you may be building a speaker system on another planet!



Peter O'Neil, Audiovisual Designer, Diversified Systems



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