

PEOPLE are often entranced by the harp for its mystical sound and image, hearkening back to the most ancient of times. Whether we realize it or not, the harp's roots lie deep within our collective consciousness worldwide. The instrument touches us in dual fashion, both in body and soul. The harp or lyre may be found in very similar form across the Middle East, Greece and Africa. Everywhere they have been found, the instruments have been used to address the sacred and the secular throughout the ages. Note that "harp" and "lyre" will be used interchangeably here as many construction and playing techniques are similar as is the use of the instrument.

Three Artist-Scholars

Three contemporary artists are involved in the field of ancient lyre reconstruction. Each one is obviously proud of his different heritage: Ethiopian, Greek and Jewish, and it is through this profound appreciation of their own cultures that they touch upon the universal connections between us all.

Temesgen Hussein of Ethiopia (<http://www.temesgen.com>) has perhaps the most immediate relationship with the ancient harp/lyre, having learned the krar and begena (lyres) from age nineteen in traditional aural training directly with teachers Alemayehu Fanta and Teshome Shenkute of the Yared School of Music in Addis Ababa. A trained architect, Temesgen is also an innovator, bringing his instruments into our era via fusion projects incorporating reggae, jazz, and Indian music and a patent-pending series of improvements to krar construction and tuning. He plans to open a school

for krar and begena. Besides his many recordings, Temesgen has instructional DVDs for krar and begena, with additional titles in the works. He is also a source for people looking to purchase these instruments.

Michalis Georgiou of Cyprus (<http://terpandros.com/>) is steeped in that island's ancient, always visible history, and over twenty years ago moved into the world of instrument reconstruction. Already a lifelong musician, Georgiou took to his workshop to recreate ancient Greek instruments. He has built more than twenty-three different types of stringed instruments, many of which can be classified as lyres. He has also formed a large award-winning student-based orchestra to perform reconstructions of ancient music on these instruments, leading to:

...the creation of Terpanndros, named after the great musician of antiquity. It is a non-profit institution with specific aims; the reconstruction of ancient Greek musical instruments, the study, revival and projection of ancient Greek music, and finally research on subjects that are related to Greek civilisation. I have personally undertaken the reconstruction of the ancient instruments, the activities of Terpanndros. Other members of the research team are working on Greek philosophy, ancient Greek discourse and its pronunciation, mathematics and their relationship with discourse and music, performance of ancient Greek music, and the writing of a book for the teaching of ancient Greek music. The holding of seminars, concerts and other events is also one of the main activities of Terpanndros.

I had the pleasure of playing on some of these exceptionally beautiful instruments one magical evening at Georgiou's house in Nicosia, Cyprus. As others who were there experienced as well, it was

as if the centuries melted away and an old, familiar voice spoke with us again.

Finally we meet Michael Levy of the United Kingdom (<http://www.ancientlyre.com/>), whose explorations into his Hebrew roots via klezmer fiddle eventually led him to dedicate himself to the ancient biblical lyre, in particular its playing techniques:

...my musical exploration of antiquity began in 2006, when I discovered that over 2000 years ago, it was my very own, very ancient Levite ancestors who actually played the ten-string Biblical lyre (the “kinnor”) in the Temple of Jerusalem to accompany the singing of the Levitical Choir--my quest to revive the lost lyre playing techniques of antiquity, for me, has simply got to be the ultimate in “roots music!”

He has delved into how construction affects playing techniques, explored clues garnered from artifacts such as paintings and sculptures (one in particular from mosaics viewed in Cyprus, highlighting the cyclical nature of this subject), digested historical references from ancient texts, and finally gathered together information from other researchers such as France’s Suzanne Haïk-Vantoura and her study of Hebrew Bible cantillation marks in reference to possible ancient melodic shapes. In doing so, Michael has promoted evidence that challenges some of our deeply held presumptions about ancient music, such as it being simply diatonic and monophonic, his idea supported by Denmark’s Lise Manniche’s findings on chromatic scale/microtonal use in ancient Egyptian music. Levy has released many recordings, plus uploaded numerous educational videos via YouTube, and generously shares his insights on his website.

Ancient Roots and Routes

According to writer Michael Hopkin, Ethiopia, currently home to over 91 million people, is one of the oldest sites of human existence and believed to be the point from which all people migrated throughout the world (Li et al.). As such, it is a good place to start exploring the roots of our beloved harp. The krar and begena, both lyres, are alive and well in Ethiopia, and serve as rare examples of an unbroken tradition.



Rock etchings featuring lyre players, discovered in the Negev desert (present-day Israel), dated anywhere c. 4000 BC to 323 BCE-330 CE (Bayer, 1968).

credit: *Music in Ancient Israel/Palestine*, Joachim Braun, William B Eerdmans Publishing Company, p. 73

Ethiopia’s krar and begena reflect the dual nature of music: krar, the smaller instrument of the two and tenor in voice, is used in secular performance, while the imposing bass-range begena is reserved for sacred events. The krar has six strings and can be held vertically or horizontally, while the begena has ten strings, is much larger, and is held vertically.

As is often the case, there are several versions of the origin of these instruments. It is generally acknowledged that the begena predates the krar (Hussein). In the Kebra Negast (“Glory of Kings”), a compilation of Ethiopian legends, the Queen of Sheba, also known as Makeda, had a son by Solomon. That son became Menelik I, the first emperor of Ethiopia. He grew up to visit his father in Israel, returning with the Ark of the Covenant and other artifacts including King David’s harp. Although there is, of course, controversy regarding the veracity of this story, the connection between Ethiopia, Israel and the harp/lyre is clear, and we shall continue to discover more connections between ancient worlds and instruments.

Another legend claims the begena already existed in Ethiopia before the Queen of Sheba’s time, and that regular citizens wanted a smaller, secular version for themselves. Hence the krar was invented (rather like the Israeli kinnor’s story, which we will read below). A more symbolic version is the familiar tale that Mercury fashioned the begena from a turtle



First known illustration of nomadic Semites playing the lyre, from the tomb of a prosperous ancient Egyptian baron named Knumhotpe at Beni Hassan, about halfway up the Nile to Nubia. credit: *Music in Ancient Israel/Palestine*, Joachim Braun, William B Eerdmans Publishing Company, p. 78

shell found on banks of Nile, a version which is also found in ancient Greek sources about the lyre. While in variant retellings, Apollo is the creating god, and the location varies, the ancient connection between cultures is clear. Finally, there is the legend that the Devil invented the krar to accompany songs celebrating worldly pleasures, which reminds us of the various times music has been banned from religious practice throughout history.

From these stories we can glean the great importance, spanning both cultures and eras, attached to these instruments. Appealing to body and soul, they are the purview of royalty, gods and demons. Georgiou further elucidates this secular/sacred dichotomy as the Greeks saw it:

They [ancient Greeks] divided music into “esoteric,” the music of the gods, which was intelligible only to a closed circle of initiates, and “exoteric,” which was the music of men. Exoteric music was used as a means of entertaining and delighting the soul and also as a means of communication with the divine. This music of men included folk music, artistic music and music which was designed for public, religious and other ceremonies; in contrast, the musical forms of esoterism were determined by the relationship of man with the harmony of the universe...Asclepius used this music for therapeutic

purposes and for putting his patients to sleep before operations. Pythagoras set free the mind of his pupils from the cares of daily life by playing them music that calmed the mind and induced deep sleep. Through the philosophy of esoterism, music helps us to overcome the anxiety we feel in a world that is often hostile. It lifts our spirits and confirms the existence of harmony in the universe.

For harp players, everything Georgiou mentions rings true as we perform today for all the same reasons: high art as a way to transcend and understand everyday life, healing harp as a way to soothe and reconnect, accompaniment music to entertain and celebrate.

The oldest actual harps/lyres still in existence were found in present day Iraq (ancient Mesopotamia), in the city of Ur, and bear striking resemblance to the Ethiopian begena. The Golden Bull Lyre of Ur and the Silver Lyre of Ur date back to at least 2600 BCE and are among the oldest stringed instruments ever discovered. Since harps are made of perishable material (wood, gut, leather), we can assume such harps were in existence even earlier. Performances on reconstructions of these lyres sound almost identical to the music of the begena. Historical harpist Bill Taylor (<http://www.billtaylor.eu>) worked in close collaboration with harpist-historian Andy Lowings to produce a performance on a reconstructed Golden Bull Lyre in 2006. The reader should compare this to Hussein's begena recordings. <http://www.youtube.com/watch?v=TSWEeBGhz4M>

There is speculation that the earliest lyres emerged from early-dynastic and Akkadian Mesopotamia and migrated through the Negev and into Egypt (Braun) and thus into Ethiopia. As our quest passes through Israel, Michael Levy comments:

By the time of the Ancient Hebrews (c. 1900 BCE) the lyre had become portable and could be played horizontally—ideal for wandering groups of Semitic nomads to play whilst constantly on the move. The very first illustration of nomadic Semites playing such a lyre is seen in the tomb of a prosperous ancient Egyptian baron named Knumhotpe. He had a forty-foot-long mural painted in his tomb at Beni



Michael Levy recording with his lyre.
© Michael Levy



An African adungu.
© Michael Levy.



Michael Levy's nevel.
© Michael Levy

THREE ARTIST-SCHOLARS:

Michalis Georgiou ►►

◄◄ Michael Levy

Temesgen Hussein ▼▼



Temesgen Hussein demonstrates krar performance stance.
© Temesgen Hussein



Temesgen Hussein demonstrates begena performance stance.
© Temesgen Hussein



Michalis Georgiou in his workshop.
© Michalis Georgiou



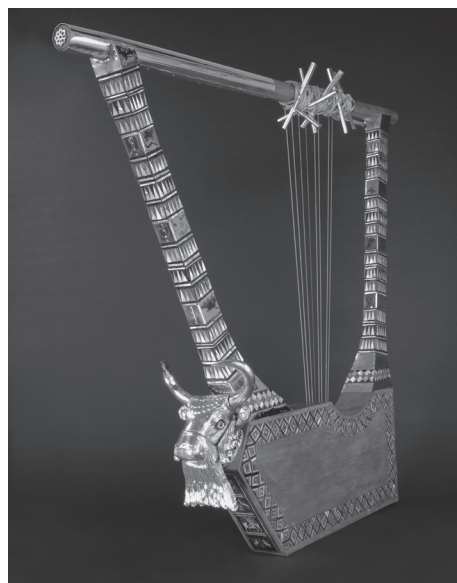
Two kitharas built by Michalis Georgiou.
© Michalis Georgiou



A Greek samvyx built by Michalis Georgiou.
© Michalis Georgiou



An Egyptian arched harp.
© Metropolitan Museum of Art



The Bull Lyre of Ur, also known as the Golden Lyre of Ur.
© Lyre of Ur Project



The Silver Bull Lyre of Ur.
© Trustees of the British Museum.

Hassan, about halfway up the Nile to Nubia. [Note the recurring Africa connection, and the horizontal holding of the instrument.]

Albert Barnes cites further evidence of the connections between these locations, instruments and the use of lyre music:

The harp **כִּנּוֹר** kinnor. This is a well-known stringed instrument, **employed commonly in sacred music**. It is often mentioned as having been used to express the pious feelings of David; Psa_32:2; Psa_43:4; Psa_49:5. It is early mentioned as having been invented by Jubal; Gen_4:21. It is supposed usually to have had ten strings (Josephus, "Ant." B. x. ch. xii. Section 3). It was played by the hand; 1Sa_16:23; 1Sa_18:9. The "root" of the word **כִּנּוֹר** kinnôr, is unknown. **The word "kinnor" is used in all the languages cognate to the Hebrew, and is recognized even in the Persian.** It is probable that the instrument here referred to was common in all the oriental nations...and of course the knowledge of it would be extended far. **It is an oriental name and instrument, and from this word the Greeks derived their word **κινύρα** kinura. The Septuagint renders it **κιθάρα** kithara and **κινύρα** kinura.** Hence, it is referred to as the instrument employed by David to drive away the melancholy of Saul 1Sa_16:16-22, and is the instrument usually employed to celebrate the praises of God; Psa_33:1-2; Psa_43:4; Psa_49:5; Psa_71:22-23. But the harp was not only used on sacred occasions. Isaiah also mentions it as carried about by courtezans Isa_23:16, and **also refers to it as used on occasions of gathering in the vintage, and of increasing the joy of the festival occasion.** [emphasis mine]

Interestingly, the Arabic word for harp, "راثيق," is pronounced approximately "githar," very similar in sound to the Greek "kithara" (Larkin). Again this instrument weaves together cultures.

Michael Levy finds another cross-cultural connection:

The root of the word kinnor was even incorporated into the names of deities such as the mythical Cypriot king "Kinyras/Cinyras." In ancient Egypt at this time, the word "knwrw" refers to a lyre.

The kinnor (like the krar) is understood to be a smaller lyre than the "NVL" (**לִבְנִי**) and pronounced "nevel" or "naval." It is also mentioned in the Bible. According to Romano-Jewish historian Titus Flavius Josephus (aka Joseph ben Matityahu, 37-100 CE) the nevel had twelve strings, while the nevel asor had ten strings and perhaps a skin membrane, exactly like the begena. Levy explains these size distinctions:

The ancient Jewish text, the Mishnah, limits the number of nevels in the Temple Ensemble to "no fewer than two and no more than six," but "never fewer than nine kinnorot, and more may be added" (Mishna, Arak 2:5). This is the first piece of evidence that the Biblical nevel could have been a bass register lyre—just as in a modern string orchestra, there are proportionately more violins in the upper register than the cellos and basses. The Mishnah also informs us that the strings of the nevel were made of sheep's large intestines, whilst those of the kinnor were made of the small intestines (Mishnah, Quinnim 3:6).

In the gorgeous ancient Greek lyre reproductions of Michalis Georgiou are echoes of what we discovered above. The seven-string lyre was most popular in the ancient Greek world, and deeply associated with Apollo and with Pythagoras' concept of the natural scale and foundation of reality. The oldest lyres sported four strings. The number increased to twelve strings as time went on. There was also great variation in size: lyres could range from soprano to tenor. As with the krar, begena, kinnor and nevel, strings were attached in a variety of ways: leather thongs, small wooden sticks (toggles), pegs, and strings were made of animal gut, nerves or plant fiber. Sometimes a plectrum was attached, as with the other lyres. A back of tortoise shell was common along with a leather covering, although Georgiou now uses modern materials such as fiberglass for ecological and convenience purposes. Arms were made of wood or bronze, and attention to the curvature of arms allows vibrato and pitch bending.

The Archaic Kithara, the gold standard of ancient lyres, had a hollow wooden base, ranged from three to seven strings, and had very complex

arms, allowing great expression of tone. Bells and cymbals were sometimes attached for extra percussive effect.

Coming full circle, Georgiou's reconstruction of an ancient Samvyx is strikingly similar to bow harps of Africa such as the Adungu from Uganda, which Levy also notes is virtually identical to the ancient Egyptian arched harp. In fact, these bow harps, derived from the bow and arrow, are considered to be the mother of all harps.

Current Practice and Applications for Western Harpists

As we see, Hussein, Georgiou and Levy have great respect for practices of the past and are eager to continue them. Yet at the same time, they are concerned with state of the art construction methods and materials and contemporary techniques, and thus keeping the musical tradition very much alive. Many of the techniques they use and document (see <http://www.temesgen.com/extras> for clear krar & begena materials) have exciting applications for harpists today in terms of performance and composition, and, while some are considered avant-garde, we know they are actually very ancient devices.

Physical Techniques:

Strumming by blocking certain strings with one hand and performing a glissando with the other, forming a chord. This can be performed rhythmically with additional attention to strumming direction (rather like flamenco guitarists do), or arrhythmically.

Holding instrument horizontally thus allowing different approaches to aggressive strumming or muting.

Plectrum use, and combination plectrum/finger plucking use for contrast in tone.

Baton use on strings and body of lyre as seen on bas reliefs of musicians in Palace of Nineveh c.700 BCE. (This technique can be heard on Richard Dumbrill's interpretation of "Hurrian Hymn Text H6" one of the very oldest discovered scores, on Michael Levy's

recording *Musical Adventures in Time Travel*, and is similar to current dulcimer practice.)

Actual **bending of the instrument** (specifically the arms) to create vibrato and pitch alterations.

Hand position with **fingers straight up** (different tone), automatic finger patterns (motifs) combined with **different types of muting**, similar to current medieval music performance practice on small harps.

Use of **different colors along length of the string** (for example, as we understand *près de la table*).

String stopping to create chromatics and microtones (used in some Latin American harp music today).

Harmonics which ring differently due to different temperaments, creating different overtones.

Scales, Modes & Tuning

Use of **multiple scales/modes**, and developed deployment of these; for example the **krar and begena's** scales (kignits) have more in common with raga modes than western linear scales:

Anchihoye (begena scale, translates to "hey, love") C C# F F# A C'

Bati (krar, most popular, named after a town) C E F G B C' or C Eb F G B C'

Tizita (krar, 2nd most popular, translates "nostalgia" from Amharic) C D E G A C' or C D Eb G Ab C'

Ambassel (krar, less common, named after a town) C C# F G G# C'

Greek modes (note these are differently named than the "Church Modes" we are familiar with today (the latter being erroneously named during the Middle Ages) and with the use of Pythagorean tuning:

B-B Mixolydian ; E-E Dorian; A-A Hypodorian;
D-D Phrygian; G-G Hypophrygian; C-C Lydian;
F-F Hypolydian,; D E F G# A B C D Chromatic Phrygian.

Hebrew modes (based on the Jewish Chazanut (Cantorial) Modes and just intonation.);

Ahava Raba (prayer of gratitude) mode: E F G# A B C D E (also Greek Chromatic Dorian Mode).

Natural minor: E F# G A B C D E'

Misheberakh (healing blessing) mode: E F# G A# B C# D E' (also Greek Chromatic Phrygian Mode)

Egyptian modes as explained by historian John Wheeler on his website: <http://www.rakkav.com> and quoted at length due to astonishing parallels with modern practice):

Lise Manniche concludes that the Egyptians also knew of and used scales with chromatic or even smaller intervals. This would seem to be confirmed by recent work by others with reconstructions of ancient Egyptian reed pipes or nays tuned to various scales. These include the diatonic scale in the “minor” mode, the chromatic scale, and certain “enharmonic” scales. The heptatonic or diatonic scale was also known from high antiquity in Mesopotamia. Cuneiform tablets found in Babylonia and Assyria and the city of Ugarit in modern Syria document the existence of that scale and all seven modes based on it as far back as 3,000 years ago. The Mesopotamian texts in particular document a system of tuning a lyre in the seven diatonic modes, complete with technical terms for the modes and even a description of the tritone as the “unclear” interval of a given mode. (Apparently only the tritone was considered “dissonant” by the ancient Mesopotamians—which fact alone has implications both for melodic and harmonic practice.) The various modes were derived by a tuning cycle called a “cycle of fifths”—the very same cycle used to tune a folk harp “by ear” today. The resulting “temperament” of the modes would have been “Pythagorean”—that is, the same temperament noted by the Greek philosopher Pythagoras (who studied music and mathematics in Egypt and Mesopotamia before founding his famous school).

Use of **different temperaments**: just intonation, Pythagorean tuning, krar and begena temperaments, creating purer intervals as well as more biting ones.

Tuning strings in a non-linear fashion, such as having large intervals between adjacent strings or, conversely, tuning adjacent strings to the same pitch, allowing for interesting melodic contours, ornaments and harmonic possibilities. The krar has its highest and lowest pitches as strings 6 and 5 respectively,

with strings 1, 2, 3, and 4 rising in pitch between these.

Musical Devices

Ornamentation such as trills, tremolos, filigree, glissandi, development of melody.

Melodic shapes similar to raga shapes in terms of contour defining the mode/meaning of piece.

Motifs/stock patterns which are repeated, sometimes very rapidly as with krar.

Universal Connection

For each of these three artist-scholars, Hussein, Georgiou and Levy, attention is paid to the symbolism of the physical instruments themselves. For Hussein, the krar’s pillars are associated with the pillar of a thatched hut and symbolize home and survival itself. For Levy, the ten strings of the kinnor and the nevel asor are linked to the Ten Commandments, the twelve strings of the nevel reflect the twelve tribes of Israel. For others, the seven strings of a lyre relate to the mystical number seven, the number of the Music of the Spheres, and according to Pythagoras “the perfect number,” while the older four-string lyre represented the four turning points of the year, that is the solstices and equinoxes. Some have attached symbolic association with the strings themselves. Writing to Michael Levy in 2012, Peter Pringle observed:

Ancient string makers guarded their recipes with all the secrecy of modern industrialists. They added all sorts of things to their binders—powdered silver and gold, minerals like rock crystal, jade, lapis—in order to impart certain sonic properties to the finished product. Much of that was, I believe, based on the rather romantic, folkloric notion that the music would ultimately take on the metaphysical qualities of the substance used. With powdered pearls in your silk binders, the string would manifest the characteristics of the sea, a small amount of the dried and finely ground heart of tiger would make your music more powerful and compelling. Interestingly, some of the substances they used (such as powdered metals) actually did change the acoustic properties of the string!

Perhaps the most inspiring aspect of these researcher-artists' work is their ultimate goal of connection with the universal, however we choose to define that. Each is driven by a profound mission towards wholeness. As performers, we often hear the same type of comments regarding our harps' music as this one:

Listen to the stark, haunting sounds of traditional Ethiopian music and you will be elevated to a place free from worries and strife. The wisdom and knowledge of centuries of culture are communicated by the nimble fingers and resonant voice of Temesgen. Temesgen sings songs of life, of love and of devotion. Deeply spiritual, with the simple truth of folk music, sanded and distilled by generations of musicians, these songs have evolved over the ages to shine with the pristine beauty of the very roots. (Review of Begena Bedtimes, Temesgen Hussein 2006)

These three inspiring artists, Hussein, Georgiou and Levy, preserve their musical legacies and expand our musical vocabulary as we harpists of today resonate alongside them.

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Personal Interviews

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