

PLATE BELLS



SVARAM™
SOUND EXPERIENCE



*Oh, from out the sounding cells,
What a gush of euphony
voluminously wells!
How it swells!
How it dwells
On the Future! how it tells
Of the rapture that impels
To the swinging and the ringing
Of the bells, bells, bells.*

Edgar Allen Poe, from The Bells

*At the ringing of bells
To wonder at beauty,
stand guard over truth
Look up to the noble,
resolve in the good
This leadeth us truly,
to purpose in living
To might in our doing,
to peace in our feeling
To light in our thinking,
and teaches us trust
in the working of God,
in all that there is
in the width of the world,
in the depth of the soul.*

Rudolph Steiner

HISTORIC AND SOUND DESCRIPTION OF PLATE BELLS

Asian Beginnings

Musical plates made of metal originated in Asia, mainly in China, around 3500 years ago, where they have been used from time immemorial and are still hugely important today. In India the ancient temple bell plates are used till this day in preparing for ceremonies, dispersing unwanted elements and invoking the helping forces and godheads addressed. A popular variation of the bell plate is the Burma bell, a distinctively shaped bell plate that is often mounted using a single hole, allowing it to spin when struck, producing doppler effects.

Bells in the Western Orchestra

In the 18th century it was extremely rare to use bells in the orchestra. It is thought that J. S. Bach was the first to use them. It was in dramatic contexts in opera that the sound of bells was most frequently required, but the use of church bells was impractical owing to their size and weight. To solve this problem, substitute instruments were made. A bell with the pitch C2 weighs 20 tons. In some large theatres buildings a set of church bells was installed, for example the Bolshoi Theater in Moscow, the Grand Opera in Paris and the Dresden Opera.

In the 19th century many attempts were made to make the sound of church bells available to opera and symphony orchestras by means of more manageable instruments. Success was achieved with various metal objects, experiments being carried out with hanging plates, bars, discs and vessels. Long piano strings thickly wrapped and amplified with

resonators were also tried out. Many of these experiments took place in Bayreuth (for Richard Wagner's Parsifal) and the Royal Opera House, Covent Garden. These efforts had as their aim the combination of two aspects: on the one hand the most accurate imitation possible of the bell sound with its high proportion of overtones and, on the other, a sound with a definite pitch.



Text and Picture: Vienna Symphonic Library

In the 20th century whole sets of tuned plates were arranged either chromatically or according to the composer's specifications. For Pierre Boulez's musicalization of Mallarmé Pli selon pli (1962) a set of plates with a compass of two octaves (C2–C4) was made. Today, bell plates with a range of three octaves (C2–C5) are available. Those with the best sound are made of bronze; at the same time, though, these are also the heaviest and the most expensive.

Sound characteristics

Deep, dark, solemn, metallic, resounding, wafting, rich in overtones, vibrating, lustrous, distant, mellow, resonant.

The low bell plates sound more like church bells than tubular bells do and they create a more authentic impression. High bell plates are as far from the sound of church bells as tubular bells are. The sound of bell plates is distinct from that of tubular bells.

The plates are both vibration generator and resonator. Plate Bells when struck ring with a strong initial transient, followed by a nearly pure decaying sinusoidal tone, which also depends on the striking spot and the choice of mallet. The striking spot in the center of the plate produces a clear fundamental, while striking the plate in the top or bottom third (still in the middle) produces a sound so rich in harmonics that the fundamental can be masked.

The sound is influenced by the weight and hardness of the mallet: soft mallets bring the fundamental more to the fore while hard ones favour the higher partials.

Single notes

Single notes are the most suitable playing technique on plate bells. Their timbre depends on a large number of factors: the choice of mallet (from soft to hard, light to heavy), the striking spot (more fundamental in the center, more higher partials in the top or bottom third), the force of attack. The sound develops only slowly on the largest plates, which means that rapid sequences of notes are not possible; they can only be performed in the higher register. In addition, it should also be borne in mind that damping the vibrating plate with the hand requires a certain amount of time.

Sound combinations

Plate bells are used principally to perform two tasks: as a substitute for church bells and to add colour. The practice of combining plate bells with metallophones of all kinds was inspired by the music of eastern Asia and was adopted for orchestral music in the 20th century. The extent to which the plate bells blend with other orchestra instruments depends on the sound structure. Their properties mean that a particularly good blend is achieved with metal idiophones with definite pitch: glockenspiel, vibraphone, gong. In addition, they combine well with all instruments that have a sound composed of attack and resonance: gong, cymbals, tam-tam, timpani, harp, piano. Played simultaneously, plate bells and tubular bells produce a powerful combination.

Mallets

The bell plates are struck with heavy, hammer-shaped mallets made of wood or with mallets with a metal core. Depending on its hardness, the mallet head is covered with either leather or felt. To bring the lowest-pitched plates to full vibration, particularly heavy, disc-shaped mallets with a felt wrap are necessary. Large drumsticks and vibraphone mallets are also used to produce special roll effects. For other effects, wooden sticks (drumsticks), triangle beaters, double-bass bows and various other beaters are used – there is no limit to the possibilities.

SVARAM PLATE BELLS

In its music-ethnological research Svaram had gathered a fairly large collection of the original Indian Temple bell plates from diverse sources, locations and states of India. These were effectively used in group improvisations and sound ensembles at celebrations. The drawback was that no artisan could be identified who still knew about the technique of tuning the plates.

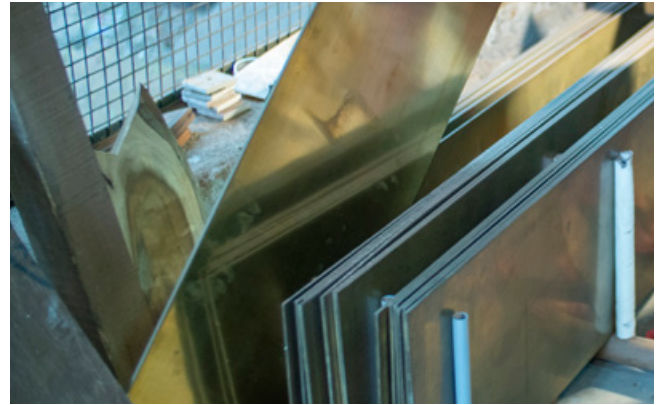
The hope was to remedy this through a collaborative project with Russian Bell Master Alexander Zhicharev who came to Auroville in 2007 to work in our workshop on a set of Russian Singing Bells.

www.auroville.org/contents/3326.



Alexander is a true master-craftsman and artist; not only has he been reviving the old Russian Bila, signal bell and transforming it into the contemporary version of his 'Trinity Sound', but he is also a visionary, seeing the power of cosmic sound harnessed for the harmonization of our earthly life. Over the years, both by our continuing research and extended experimentations, we have managed to refine the plates to an international standard of precision and quality and are proud to be among the very few places worldwide to be able to produce sophisticated and selected Plate Bells.

Materials



While we are presently using industrial standard brass and aluminium alloys, we also would like to explore bronze bell metal having once secured a reliable source. Experiments with other metal alloys are projected with a promising sonic novelty not yet revealed.

Brass has a natural shine, not only in its material but also in the clarity and consistency of its sound and effect. It radiates the sound waves in a full spectrum distributed equally through any in-or outdoor space.

Aluminium alloys are more soft, with deeper and more rounded fundamental resonances and a broader, softer effect. The material is more affordable and allows works in larger dimensions as it is lighter in weight and handability.

Most of the Plate Bells come mounted on handcrafted wooden stands which are dismountable for the larger models. The stands can also be customized to synch with interior design, client needs and specifications.

Tuning



Through a special technique we are now able to overtone tune the bells precisely on the fundamental and its first and second octave with a high accuracy within minimal measurements of cents. Working with the potential of the deeply blending resonances of the Plate Bells we were inspired to experiment with the natural, pure whole number proportional structure of the harmonic series and chose to bring out sets in Just Intonation tuning systems. These, in matter and the universal naturally inherent tonal intervals and systems seem to be, in our experience, to be much better suited to Sound Healing and Balancing work as they reflect the harmonic laws of the cosmos and can assist in bringing our mind-body systems and the healing resonance into alignment with the natural order.

While our selected Just Intonation tunings are based on the scientific C 256, working on a combination of Pythagorean and Harmonic Series intervals, we also make standard diatonic and chromatic sets for musicians on A 440. Customized orders from international customers promote a wide range of experiments in scales of diverse origins, and often bring surprises in microtonal and binaural beat explorations.



THE ARTISAN: JAN VAN DEN DIKKENBERG



Born in the Netherlands, Jan is one of the early settlers of Auroville. Since his arrival in 1974, he has been immersed in restoring the land, afforestation and introducing energy conservation efforts; the trees that stand strong and tall now, the windmills, ... are all a testimonial to his fervent commitment to nature.

Jan's deep interest is in working with different elements and bringing them alive; wood, metal, stone. A strong and pragmatic hands-on person, by 1991, he was running a high quality carpentry/furniture workshop, creating bespoke furniture pieces that were much sought after. Since 2003, Svaram has been privileged to have Jan as a senior master craftsman, teacher and production supervisor. His versatile skills, resourcefulness, and his readiness to help with any challenge, make him an inspiring and energising presence.

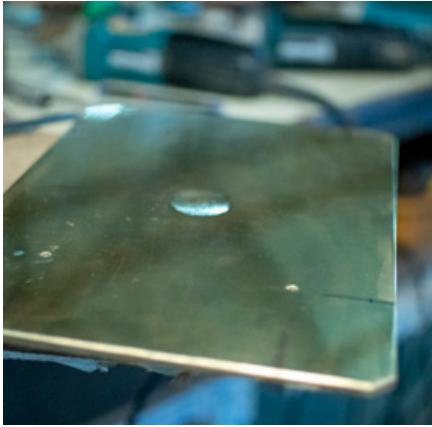
Plate Bells created by Jan seem to radiate a deep imprint of his vitality and spirit; his passion for perfection and mastery.

"Tuning of bells is akin to an intuitive dance; as I am cutting and filing bit by bit, with utmost care ... it changes the totality of the relationship of the tones within the plane; and it is transformed after several careful progressions of a similar nature. It is very delicate. One stupid oversized cut could even spoil a plate. A sequence of operations such as cutting, filing, grinding, rendered patiently and with restraint; and finally the different tones come together in harmony." says Jan.

Seeing him at work, it is evident that he has journeyed to a unique space of supreme artistry. Recalling a key milestone in the history of creating Plate Bells at Svaram, Jan narrates:

"As it happened, a volunteer from my hometown, Joska de Langen, joined Svaram in 2012. He experimented (2013–2014) with finding a way to tune the second octave of our bell plates. A great breakthrough! The results established the foundational techniques for the Svaram plate bells. Now, they have been taken to a whole different level where the fundamental, along with first and second octave of the tone struck, are in resonance. Years have passed, and the techniques, design and finishes keep evolving in a never ending striving towards excellence."

Jan has created more than 1000 plate bells of which some 500 are overtone tuned. It is a rare privilege for any apprentice to be invited to share the Master's (Jan's) 'secret alchemist's kitchen' of the metal sound smiths. Beside being a fervent Blues electro-guitarist, Jan has a great sense of humour and is respected for his ethics. With a home in the forest, he also adheres to a highly disciplined and simple lifestyle – he will not miss his yoga classes in the early morning hours or even after a long day in the workshop.



While the resulting sound of the tuned Plate Bells stands symbolic of clarity, purity and beauty, the actual making of the instruments brings challenges and limitations but also the transforming power of working with metals. The process needs high concentration, precise craft and listening skills and strong hands.

QUALITY CONTROL



ASSEMBLY



MODELS, APPLICATION

We are offering a diverse range of sizes and tunings of the Plate Bells, single and in sets, on tables or large studio stands or for hand held and swinging, hanging and ceiling suspended applications.

We have made customized Plate Bells for yoga and dance studios, corporate offices, hotel foyers and ashrams.

Table Bell



Multinational Corp. Office Gong



INDOOR

Yoga bells in a private studio, Austria



Hotel Foyer





PLATE BELLS AND SOUND HEALING/WELLNESS

Due to the purity and clarity of the sound and selected frequencies the Plate Bells are some of the most precious quality instruments in the growing Sound Healing/Sound Health and Well-being arena. As they allow and necessitate most precise tunings their application in therapeutic settings can bring in the harmonizing alignment with the natural structure and law of music which also reflects the inherent structure of matter, the rhythms of energy and the movements and cycle creation.

The Plate Bells are an essential feature of the Sonorium Sound Healing space where they create the necessary strong resonance for an uplifting atmosphere for the healing work to be effective.

SONORIUM



Sonorium Set

A selection of brass plate bells set in the prime pentatonic excerpt of the harmonic series, refined with specialized overtone tuning – enhancing purity and sustainability of tone, brings the tonal pillar into the Sound Healing Room. Defining the elemental circle and play of musical harmony, they introduce a strongly resonant and solid, anchoring component into the etheric sound atmosphere of the space.



Plate Gong 64

The size and massiveness of this single gong helps to anchor the fundamental frequency of the Sound Space. The given tonic is the physical C, and in this case is the sixth octave of 1, where through simply doubling the frequency 1, 2, 4, 8, 16, 32 ... we reach 64 Hertz, which is taken as the core vibration for all the other tuned instruments. This is the seed, the Bindu and opens the gateway from and into silence.

OUTDOORS

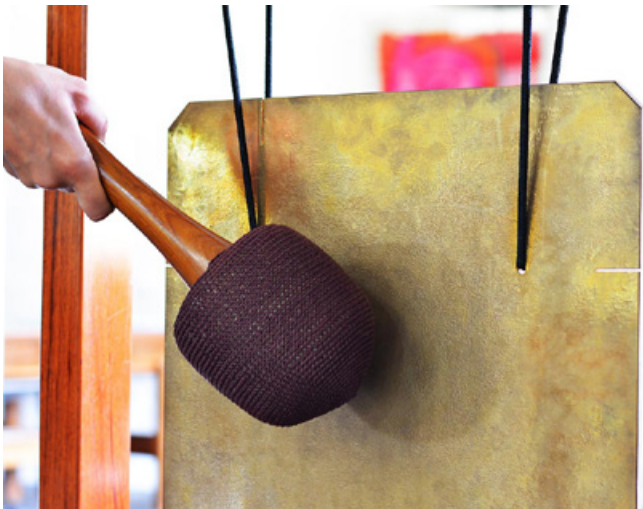
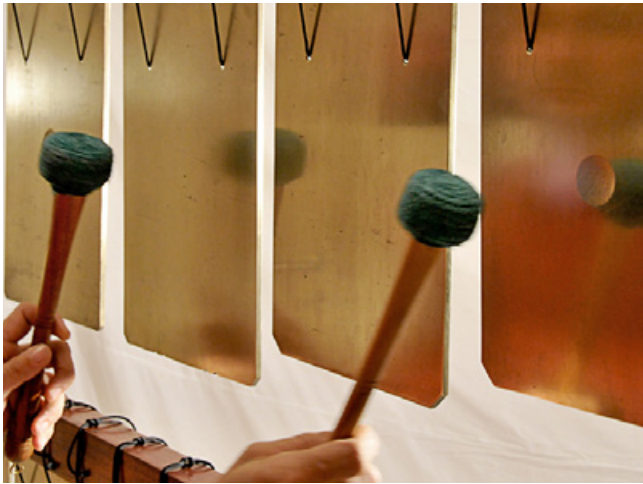
Placed in a significant spot this single Plate Bell offers the fundamental frequency and tuning for the Sound Garden and has the effect of a powerful 'gong', spreading its resonance equally in all directions.



ACCESSORIES (additional price)

Mallets

We offer a selected set of 4 plate bell mallets (846–849) according to the overall range of the instruments, so that you can form the characteristic bell sound. We would be glad to give advice on your individual choice.



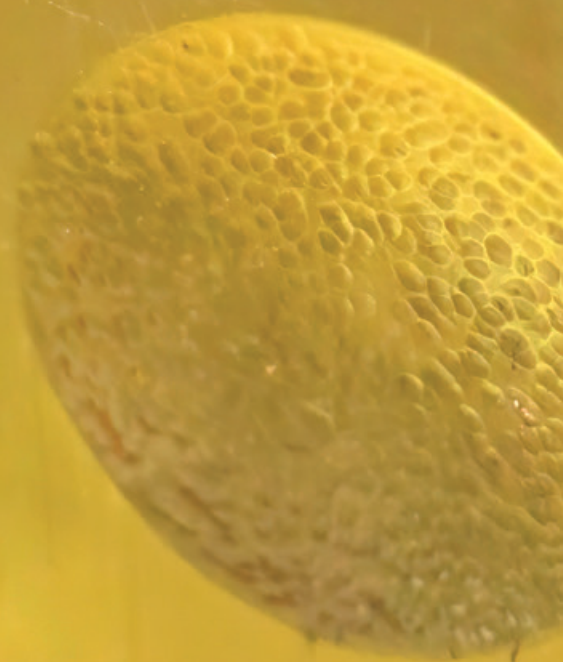
PROSPECTS/OUTLOOK

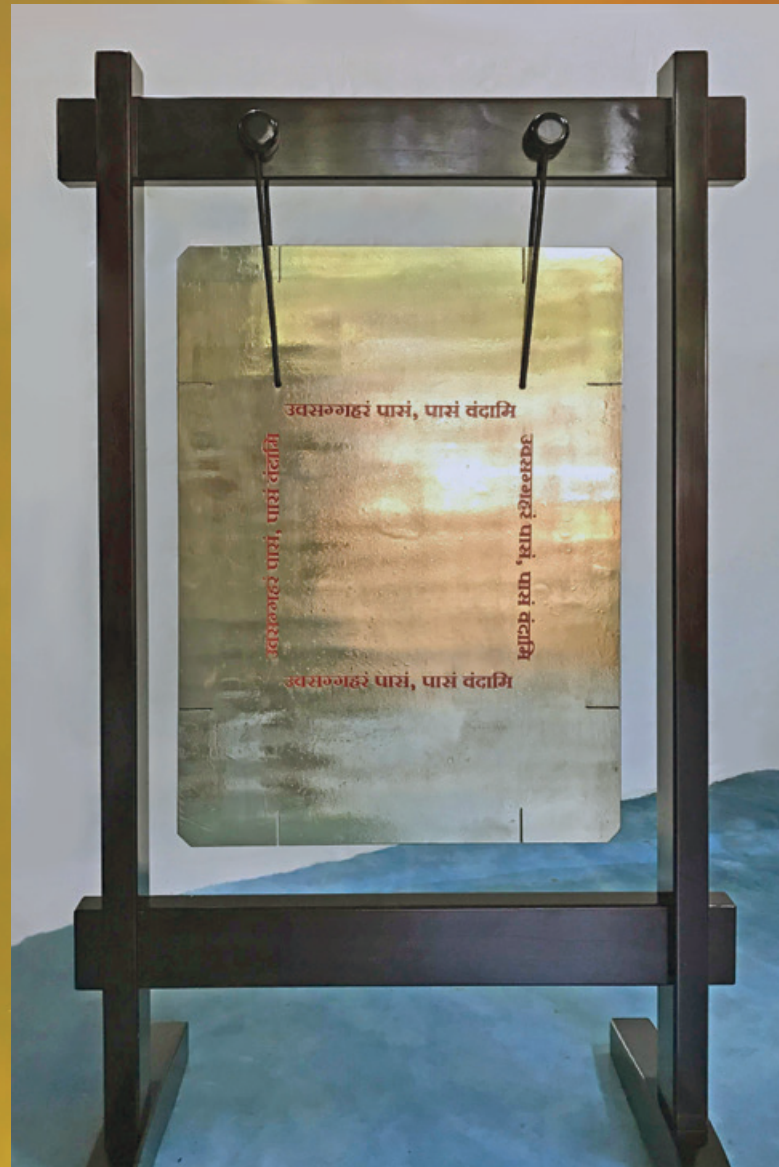
The powerful resonance of the Plate Bells not only evokes a very special atmosphere but also seems to herald a new emergence and opening dimension of purely acoustic material instruments which effect our bio-energetic system in a deep and encompassing way. As if bathed in and suffused by the actual touch of sound waves all layers of the being come into heightened vibrations, the physical cells dance, the energy level is stimulated and the consciousness is invited to spread, widen and deeply relax into no mind, not knowing, opening to the mystery of creation.

There is a sense that we are just on the verge of a new evolutionary opening into deeper layers of our perception and self healing capacity and we are thrilled to have already been invited to University and Research Institutes wanting to examine and research the effect of the powerful vibrations and their transformative potential.

We are excited to be part of this pioneering movement and see the SVARAM Plate Bells bringing a solid contribution into the emerging field of vibrational and energy healing modalities.







SVARAM SOUND HEALING

SVARAM Sound Healing modalities offer a new approach to Wellness and Wellbeing. The original role of music and sound as a source of inspiration and healing is harnessed again to create an uplifting, aesthetic and harmonizing experience. Sound has been used in many cultures from ancient times and in many therapeutic contexts to heal, strengthen, rejuvenate and restore us physically, emotionally, mentally and spiritually. When we are out of balance we feel a disharmony which may manifest in confused thinking or stress, physical symptoms, fatigue and emotional vulnerability.

A Sound Healing Session creates an atmosphere and dedicated space of listening, tuning, aligning and coming into resonance with the universal principles and effects of material and subtle vibrations. Tuned sound brings the receptive person into deeper, dreamlike, relaxing alpha states, which stimulate the inherent self healing powers, aligns the body and its more subtle layers, brings the system into deeper coherence and offers the opportunity to harmonize, refresh and re-balance the organism. The naturally tuned instruments reflect the harmony of the spheres and the organic fluidity of waves – life in its original expression. The synaesthetic sensory experience invites us into a heightened awareness and deep relaxation throughout all the cells, uncovering layers of self and soul.

Benefits include calming the mind and stopping internal dialogue; rebalancing the physical, emotional and spiritual bodies and awakening higher states of consciousness that are conducive to healing and transformation. A Sound Bath experience will alleviate stress, let your muscles and entire being relax, renew and rejuvenate and leave you feeling content, clear, minded, energetic and optimistic. Existing research confirms that Sound Healing synchronizes brain waves to achieve profound states of relaxation, helping to restore the normal vibratory frequencies of the cells in our bodies.

SVARAM Sound Healing offers

- a new wellness modality
- a full body listening experience
- a magic space of auditory and sonic surprises
- deep relaxation and de-stress
- opening and dissolving of limiting blockades
- regeneration and wellbeing
- reinvigoration and energetization
- an enhanced awareness space of listening and musical vibrations
- a letting go into the flow of soundwaves
- a harmonization of the mind and emotional system
- a balancing and recreation for the body
- a touch of inner soul spaces
- a heightening of spirit
- a lifting up into inspirational space





SVARAM – Musical Instruments & Research
Auroville 605 111 TN India / Tel. +91 413 2622220
www.svaram.org / svaram@auroville.org.in



Click here to see the video on
YouTube or scan the QR Code.