

"The Page" for Handpan Enthusiasts

Updated on 2/0/2022

It is thanks to countless shares that our Shellopan cooperative has grown since 2010. Continuing in the spirit of sharing embraced by all those who have helped us grow, we have chosen to publish the information we believe will be most useful to anyone interested in handpan making.

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1) The Handpan: A Copy of PANArt's Hang, or Has It Broken Free from Its Original Inspiration? Current Status of Legal Disputes and Outlook... (updated September 9, 2025)

Given the many stories and legends surrounding the conflict between PANArt and the handpan community, I (Matthieu Shellopan) feel it's important to write so that too many legends don't take the place of history... To provide context for the analysis I may offer, I'm writing as an active

in the handpan community. My work as a maker is based in France and was entirely inspired by my experiences at PANArt, which began over 20 years ago. I also led a project to manufacture raw materials (Shellopan shells) in Europe from 2014 to 2018. Finally, I am completely independent of any supplier, client, or partner currently involved in a legal dispute regarding copyright issues.

In my opinion, handcrafted handpans have been gradually establishing their own identity separate from the Hang for over 10 years. Indeed, while they were initially entirely inspired by the Hang—that deliberately minimalist, always intuitive sound sculpture offering an inimitable sound and “kick”—artisan handpans are now following a path that leans more toward musical instruments with an increasingly wide range. The handpan’s timbre leaves less room for “modulations” (a term used by PANArt to describe one of the distinctive features of their sound) in order to focus on a more crystalline sound that allows

an increase in the number of notes. Each artisan maker has also developed a visual identity and affixes their signature to their own work, making it possible to distinguish their creations from those of other artisans. The Hang and artisan handpans are becoming less and less comparable, but there is nevertheless a production of handpans that could be described as more industrial or bearing greater similarities to PANArt’s Hang, and which continues to raise the question of emancipation. Since this issue could not be addressed within a handpan community that lacked the necessary structure for such a discussion, it has unfortunately escalated into a legal dispute between PANArt and professional handpan stakeholders (regardless of whether they are artisans, manufacturers, retailers, importers, etc.).



Photo of a handcrafted handpan I made and a PANArt Hang illustrating the issue of inspiration versus plagiarism.

In 2020, the Swiss company [PANArt](#) took legal action in Germany to enforce its copyright on the Hang, which is considered an “applied work of art

." Twenty years after the Hang's creation, the call for independence that its creators had originally made to handpan manufacturers had now become far more restrictive than what had been requested in the past (e.g., the cases of Bellart in Spain and EchoSoundSculpture in Switzerland). This new wave of legal action could be explained by a legal opportunity afforded by European law (see the CJEU's 2020 *Brompton* ruling).

PANArt's argument is based in particular on a [technical expert opinion by Dr. Anthony ACHONG](#), to which a small group of makers sought to respond in the form of an [open letter to the steel tuning community](#). In drafting this open letter, they sought to

engage in a

candid discussion about the functional and aesthetic elements of the Hang, which are of great importance in determining what can be protected by copyright and what should instead be the subject of a patent application. This initiative came to nothing, perhaps due to a lack of a voice representative of the entire handpan community and a lack of willingness on the part of PANArt to discuss the matter. The only venue for the debate could therefore only be a court of law.

To address the risk of setting multiple legal precedents that would have been detrimental to professional handpan practitioners, a collective initiative claiming to represent the "united handpan community" was founded in 2020 under the name [HCU](#). A fundraiser was organized to pursue legal action. Any moral criteria regarding the use of the funds were rejected, and the funds were first used to finance the defense of a handpan retailer in Germany known for its questionable business practices (World of Handpan / Handpan World). Another major use of the funds was to launch a "preemptive strike" against PANArt by asking the court to rule not only that certain makers and retailers were not infringing copyright, but also that PANArt should have no rights or

any possible course of action against them. Various independent cases were consolidated or put on hold pending what would become the main case:

the attack organized by HCU against PANArt, conducted in Bern (CH) and challenging the fact that the Hang could be protected by copyright. As the positions of each party increasingly confrontational positions, so PANArt decided to respond to the attack by compelling Swiss makers to join the lawsuit (by sending cease-and-desist letters demanding an end to any potential infringement) and by conducting a seizure at Ayasa's workshops in the Netherlands (a handpan manufacturer and supplier of raw materials to other makers).

Throughout the first phase of the trial, HCU's offensive strategy was to develop an argument to ensure that the Hang could not be protected by copyright. It consisted of demonstrating that the Hang had been discovered by chance, without any creative process, and that its evolution since the first prototype was merely the result of technical choices. As a handpan maker who was inspired by PANArt's work, I would obviously not feel comfortable making such a claim! But unfortunately, there was no alternative solution because no diplomatic approach had managed to reach PANArt, and many in the handpan community simply had to accept following HCU's strategy or remain silent. It also became tricky during this period to propose new shapes for the instruments, as this could have undermined the legal strategy chosen by HCU (a strategy based on the premise that the shape is merely the result of functional choices; any change in shape would be detrimental to quality or would lead to the creation of a different musical instrument).

The outcome of the first phase of the trial came on July 2, 2024, and appeared to be 100% in PANArt's favor. It confirmed the recognition of the Hang as a work of applied art as identified by its lenticular shape, its centrally positioned Ding and Gu, and the notes arranged in a circle around the Ding. HCU's strategy of presenting the Hang as the result of technical choices that do not warrant under copyright law, failed while consuming what was likely a substantial budget for both parties (HCU had publicly stated that the initial budget announced by their attorneys was €250k for the entire proceedings, but many observers indicate that after five years of litigation, the budget exceeded one million euros). A review of all public documents released to date reveals a lack of scientific research contradicting the scientific publications supporting PANArt—which were mentioned several times by the judge—and there is no doubt that this contributed to the failure of the proceedings.

On September 5, 2024, the majority of the parties involved in the lawsuit decided to appeal the Bern court's decision to grant PANArt copyright protection. Many members of the handpan community acknowledge that PANArt deserves to hold a copyright to its creation, and continuing to spend substantial sums on legal fees to delay or prevent this recognition is a dishonorable fight. It appears that the strategy was simply to drag out the proceedings and/or make them more costly. Such a strategy further delayed the clarity that all makers need to know what a judge would consider to be plagiarism and what would not.

In the days following this appeal, PANArt sent a mailing to more than a hundred makers and retailers in Europe to inform them that they intended to assert their rights in the event of a victory in the appeal proceedings. The fact that it was unclear exactly what a judge would consider to be plagiarism—or not—was then used as a strategic ambiguity by PANArt in its mailing. In response to this letter from PANArt, HCU announced without prior consultation that they were filing a complaint against PANArt because the letter allegedly implied that all handpans were counterfeits... This latter approach seemed particularly litigious and failed. It was brought by a representative of HCU and thus ambiguously implicated the handpan community, as there has been been any discussion regarding such a proceeding with the broader community of makers. In my view, HCU's abuse of legal procedures could be perceived as harassment and might sway the judges' sympathy toward PANArt. To better understand this notion of harassment, it is important to recall that another case was being pursued in parallel by "World of Handpan"—using the same lawyers as HCU—against the registered trademark "Hang." This is likely the most disrespectful action that will remain associated with our community (World of Handpan was the catalyst that forced the handpan community to react against PANArt in 2020; it was also one of the very first to benefit from the funds raised by HCU... all this despite the fact that no one wanted to support this type of business, which was considered aggressive and which blatantly used keywords related to the Hang to boost its visibility).

This case, which began in November 2023 and can easily be described as utterly ridiculous, ended in a victory for [PANArt, which remains the rightful owner of the "Hang" trademark](#). Finally, in March 2025, we learned that the appeal had been rejected by the Swiss Federal Court, which apparently did not wish to re-examine the existence of a copyright until the Bern court had completed its ruling by determining the exact scope of that copyright (Phase 2 of the trial).

Rather than a protracted legal battle involving a pointless appeal, I believed that HCU's continued work toward "Phase 2" of the legal proceedings should have been the priority, since a final court decision is a prerequisite for peaceful coexistence between PANArt and professional handpan players (regardless of the outcome—an external arbitration has become necessary). As a self-proclaimed organization created in haste in 2020, HCU now consists only of members directly involved in the lawsuit, spanning Switzerland, Germany, and the Netherlands. It faces skepticism because defending the business interests of its involved members is not necessarily seen as defending the best

future for the handpan, and there is no system for collective decision-making on this matter. Furthermore, by choosing to drag out the case as long as possible and make it particularly costly—a strategy quite commonly employed by lawyers primarily serving their own interests—HCU delayed the release of information needed by all makers. This exposed them to the possibility of other legal proceedings being initiated in other countries (see PANArt’s letter/mailling of intent dated September 18,

September 2024 on this subject and the December 4, 2024, appellate ruling in France in the case pitting PANArt against Zenapan, a dropshipping reseller of very poor-quality handpans), and it also limited their ability to invest in order to remain competitive.

“Phase 2” of the trial began in late September 2025, coinciding with a new attempt to raise funds from the general public. This crowdfunding campaign particularly shocked many people with its completely unabashed marketing that relied on influencers and musicians. The strategic insistence on defending a “vanilla basic” version of the handpan also struck me as ill-suited to the situation. A new round of briefs from both parties preceded a hearing and/or ruling scheduled for 2026. The anticipated ruling was intended to establish a more precise boundary between inspiration and plagiarism solely for the parties currently involved in the lawsuit; this would provide insight into the scope of PANArt’s copyright as it might be defined by a Swiss judge regarding the applicable law in Germany, Switzerland, and the Netherlands (these countries only). Since the court had already largely rejected HCU’s arguments regarding the four key points identifying the Hang, all handpan stakeholders expected that they might have to contend with restrictions affecting functional elements (see: in 2023, PANArt proposed abandoning the outward-pointing Ding; this proposal, which applied only to the parties to the ongoing lawsuit, was rejected because it was considered that the orientation of the Ding is a functional rather than aesthetic). In commenting on the July 2024 verdict, the two parties reached opposing conclusions: HCU wrote that the [scope of this copyright would be significantly reduced](#) during the second phase of the trial, whereas, PANArt announced its confidence that the court would rule that handpans from Ayasa, YataoPan, World of Handpan, Thomann, Terré, ... (non-exhaustive list) will [be deemed counterfeits or plagiarized works](#). The list of entities currently involved should also be viewed as encompassing a sublist likely comprising several hundred different handpans, and it will be necessary to determine which ones infringe copyright and which do not.

The ruling for “Phase 2” was handed down on June 16, 2026. It follows from this ruling that copyright does not protect the “principle” of a hand-played metal idiophone, but may protect a specific combination of design choices if that combination results from creative freedom and produces a distinct visual identity. The

The handpan and the Hang can therefore coexist if the handpan differs sufficiently from the Hang—for example, by breaking the Hang’s strong vertical symmetry (a central note with an outer “ding” aligned with an inward-facing “Gu”). Photos of certain instrument configurations allowed the judge to conclude that certain differences were sufficient to avoid copyright infringement (the “mutant” configuration with bottom notes, the so-called “Medusa” configuration, and the “multi-ding” configuration).

Although this ruling is not valid in France, it nevertheless provides insight into the combination of elements required for an instrument to be considered an infringement or not in Switzerland, Germany, or the Netherlands. As a handpan artisan in France, this ruling is perfectly compatible with the continuation of my work, which naturally aims to increasingly break free from the initial inspiration I received from PANArt. Since certain combinations of elements are easy to implement, this ruling may also pave the way for industrial projects that were waiting for the “green light,” but it will nonetheless slow down the production of so-called “vanilla basic” handpans sold via dropshipping or by resellers (I consider a handcrafted handpan to bear the signature of its maker(s) or tuner(s), unlike an industrial handpan where the human touch is hidden behind a brand).

From a financial standpoint, the court quantifies the extent of HCU’s “victory” in its lawsuit against PANArt at... 5% (see [PANArt’s summary of the decision](#) outlining the remaining 95%). Until the end of August 2026, this ruling may be subject to an appeal initiated by either party. In the event of an appeal, it will be interesting to analyze who is satisfied or dissatisfied with the ruling and what narrative they present. In the hours following the publication of the ruling, the websites of handpan industry players involved in the lawsuit removed all handpan configurations that had been deemed contentious by the judge. Some influencers/resellers were ...even though we're already ready to go with a new entry-level instrument imported from China that includes the necessary modifications, the studio photos have already been taken, and the product is already available...

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2) The History of Shells: The Starting Point for Every Handpan Manufacturing Project!

Here is the little-known story of the shells used to make handpans. It is the evolution of these shells that has greatly contributed to the proliferation of handpan-making projects around the world and, perhaps at times, to an over-standardization of the handpan. I (Matthieu Shellopan) feel qualified to tell this story because I oversaw the production of the first stamped shells, which were shared among several handpan makers.

Some handpan makers have created their own shells, sometimes using very creative technologies, but for now I'm choosing to limit this article to projects that had a collaborative aspect. It will be updated later to highlight certain other projects. Feel free to write to me about this.

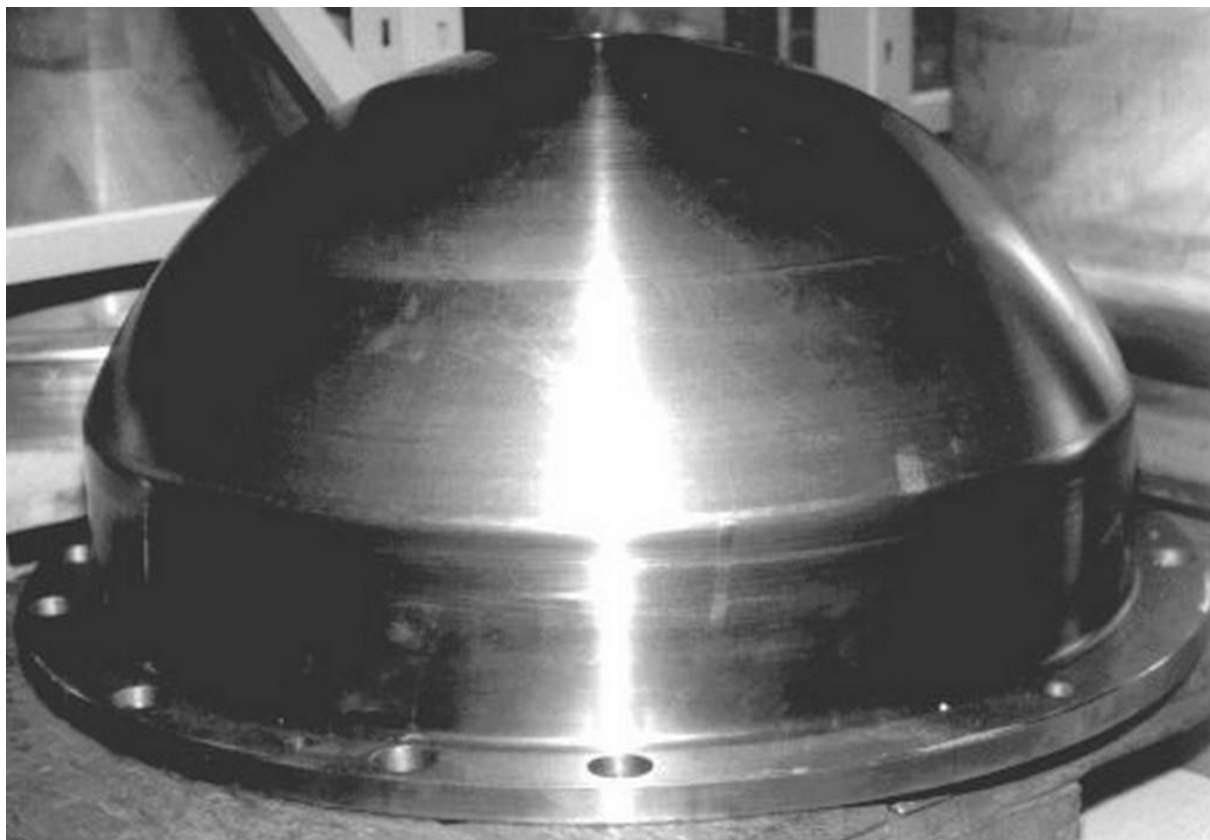
Before the year 2000, no one had ever heard of the Hang or the handpan! Only the steelpan existed, and historically—and still today—it is primarily made from steel drum bottoms

. The technique of first hand-stamping the bottom while specifically distributing the thickness of the material is physically demanding; it has been refined in Trinidad year after year since the steelpan's beginnings in the 1940s.



(screenshot from “Sounds Like Steel (A Steel Pan Documentary)” by Chas Sheppard)

In the year 2000, PANArt presented its paper “The Technology of a New Rawform” at the “New Developments of the Steelpan” conference in Paris. The technique for deep-drawing steelpan shells was presented and documented there; the same technique was adapted to make the shells for the Hang. I wasn’t at that conference, and I didn’t encounter the Hang until 2005, before becoming fascinated by its manufacturing technique after my first visit to PANArt in 2006.



(PANArt document – Hemispherical Drawing Punch – 2000)

In 2010, I rented my first workshop to truly get my handpan manufacturing project off the ground. At that time, aside from the Hang, the only handpans known worldwide were the Halo, Bellart, Spacedrum, and Balisteelpan. They were all very different, mainly due to their unique shell-making techniques. The Hang's shells had been press-formed since the year 2000, the Halo shells were hammered using a beautiful technique they had invented to control the thickness of the material, the early Bellart shells were hammered while undergoing a continuous thinning of the material, the Spacedrum shells were hydroformed, and finally, the Balisteelpan shells were handmade by hammering the bottoms of steel cans. My first consideration, therefore, was how to shape my first steel shells.

**Hangout UK
2010**

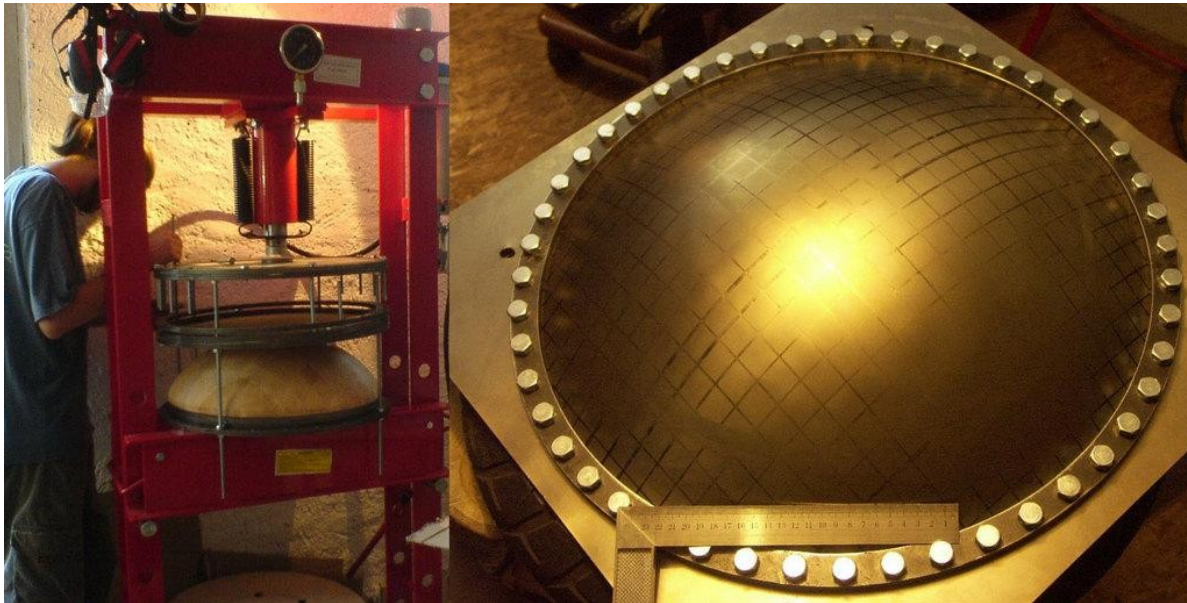
**complete
family
picture of
the diversity
of handpans
available at
that time**

picture : Shellopan

- 1 - Hang 1st Gen**
- 2 - Hang 2nd Gen**
- 3 - Hang Free Integral**
- 4 - Halo**
- 5 - Bellart**
- 6 - Spacedrum**
- 7 - Bali Steelpan**

(family photo showing three generations of Hang and all the handpans known in 2010)

In 2011, I created my first artisanal deep-drawing die and produced my first deep-drawn shells with a diameter of 530 mm. Building on this initial experience, I began contacting industrial prototyping companies to explore the creation of a much more professional die. This project was put on hold because the production volume required for such a tool to be economically viable was too high for Delphine and me. There were now two of us learning to use the same equipment, but we were still very much beginners.



(Shellopan's first handmade deep-drawing tool)

In 2012, the first “spun” shells hit the market; they came from Pantheon Steel in the U.S. and cost between \$160 and \$200 each, excluding shipping. Delphine and I had the opportunity to meet with artistic metalworkers and experiment with other ways of making shells, such as using an olive press, and it was that year that we were able to present our first finished instruments to the public at an arts and crafts fair in Strasbourg.



(First

Shellopans made with shell-shaped shells using an olive press—Pfister)

In 2013, we had to move the workshop, and that year was largely devoted to creating our new creative space. New tools for manufacturing the

shells were tested, such as this prototype automated embossing station built using a tire changer, a roller skate wheel, a concrete vibrator, a conveyor motor, and an electronic variable-frequency drive (everything is shown in the photo below)!



(design of a semi-automated forming tool)

2014 was a year when many new maker apprentices were launching projects all over Europe, and it was the right time to revive the idea of making stamped shells using professional tooling. I proposed this idea to several makers who were then making their very first instruments by stamping the shells by hand, and a group of aspiring makers formed around the idea of sharing shell production. I suggested that we carry out an initial joint production run of shells using the hydroforming tooling I had already begun designing but had put on hold for several years.

Other members of the group explored alternative approaches, such as hydroforming, but the quoted price per shell was very high, so that option was ruled out. In the end, a group of seven aspiring manufacturers agreed to take the risk of sharing the order for an initial batch of hulls, without knowing what quality I would be able to achieve with “low-cost” tooling originally designed to handle a production run of about 1,000 hulls. We wanted to create a non-profit cooperative project by sharing the risk of a possible failure. I then built the stamping die

with an industrial prototyping company based in France and selected the first two batches of steel, 1 mm and 1.25 mm thick, and made the first prototypes... The result, as measured by the precision of the thickness distribution across the entire hull, was excellent, and it was a “game changer” for the progress of the entire group of early adopters of these shells.



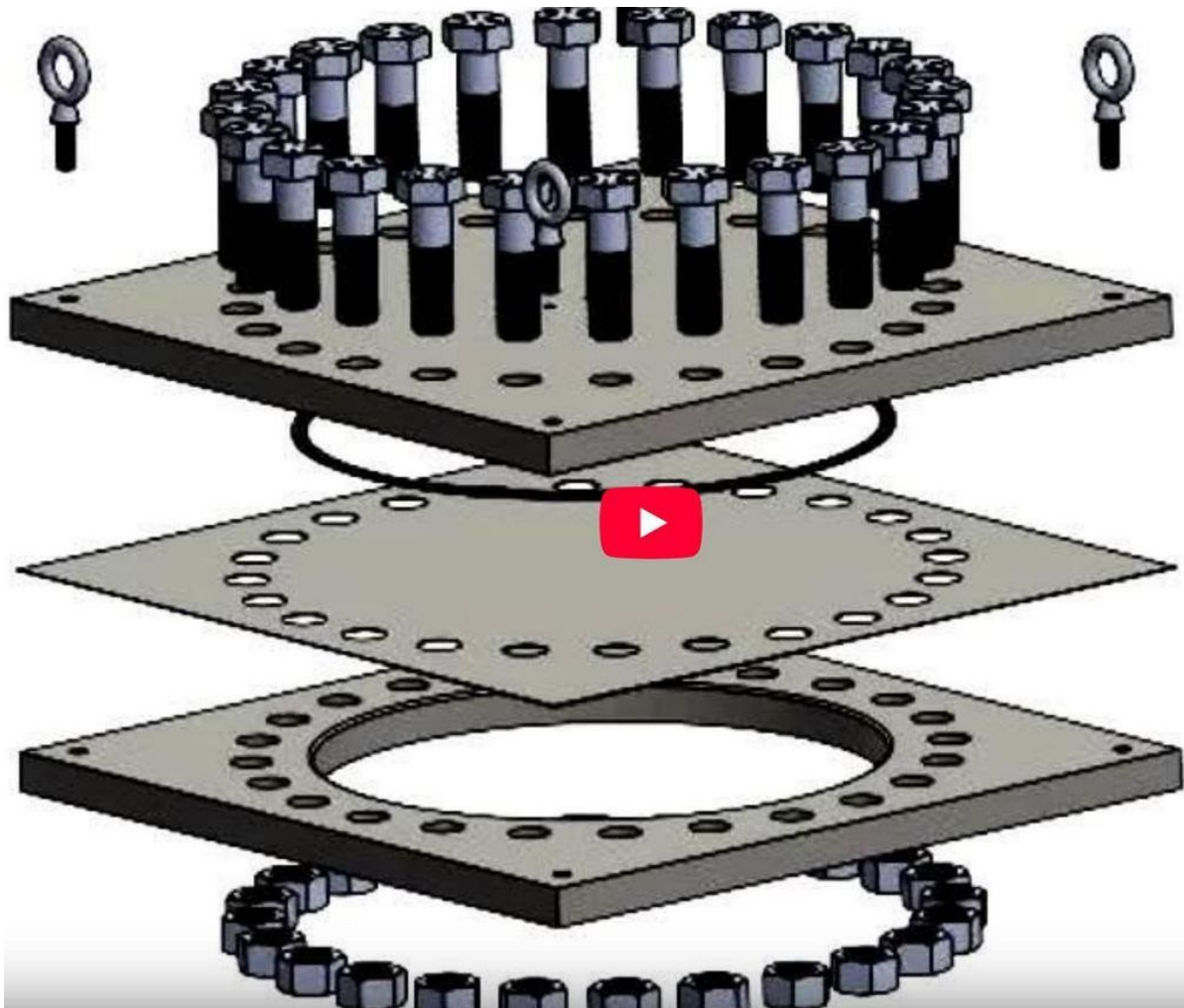
(Thickness distribution of a Shellopan batch 1 shell, measured with an ultrasonic probe)

For about four years, thanks to constantly updated tooling, I led the production of several thousand shells that became known as “Shellopan shells.” They were used by various aspiring manufacturers around the world. We also welcomed many visitors eager to learn the basics of our work in our workshop. Early participants benefited from raw materials provided at cost, while newcomers covered the cost of updating and maintaining the tooling by paying a slightly higher rate (€38 per shell). I faced numerous issues related to production, materials, suppliers, and difficulties in sourcing steel of the desired quality... The workload for me also became particularly heavy and very difficult to share with the shell users. Finally, the tooling required significant updates with each production run.



(Preparing shipments of shells—each shell is inspected and, if necessary, brushed; each box weighs 30 kg...)

In 2016, Colin Foulke documented the hydroforming process—a technique that Spacedrum had already been using for several years but which no one had documented before. I remain convinced that the thickness distribution with the deep-drawing technique, but this new technique was a landmark event in the history of handpan shell manufacturing because it made it possible for anyone to make high-quality shells, even in their garage or backyard!



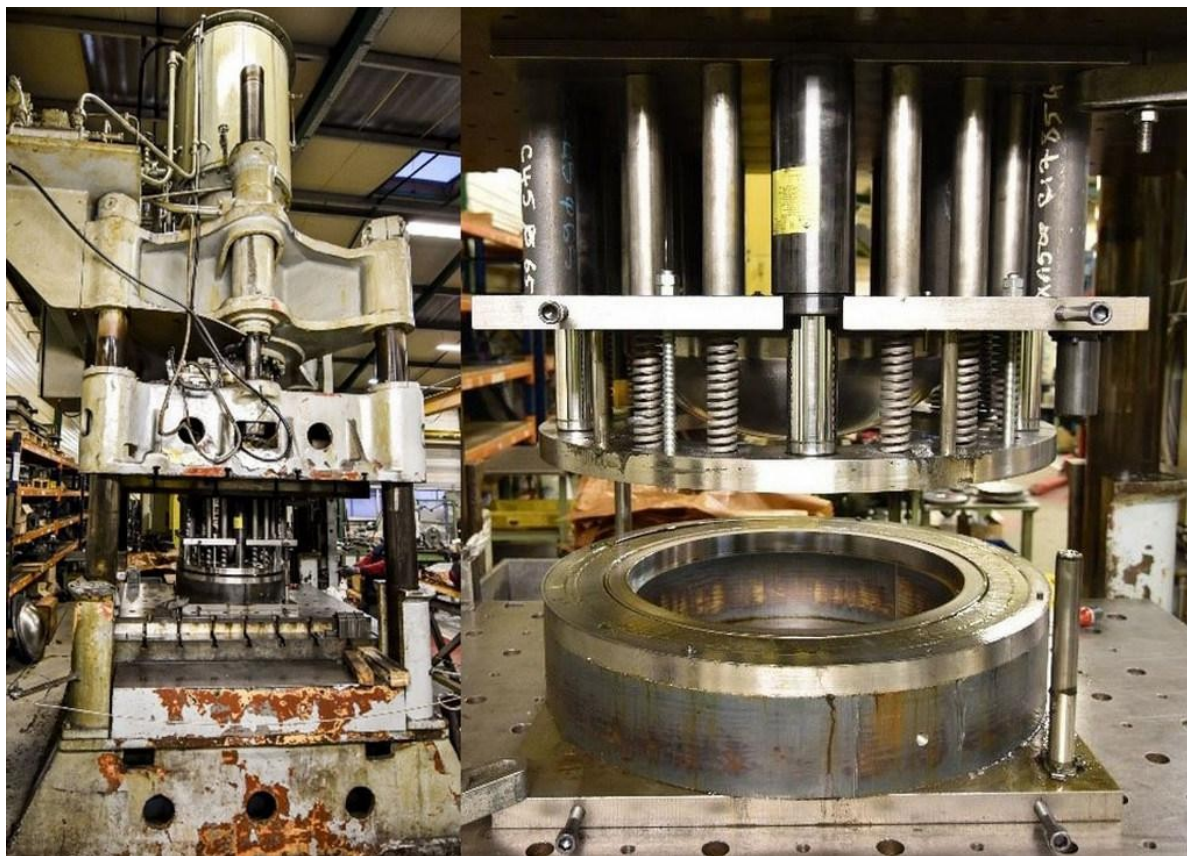
(Screenshot from Cfoulke's presentation video showing a diagram of a hydroforming station)

By 2017, demand for raw materials had been growing steadily over the years. Our initial intention—to help fellow aspiring manufacturers by launching a cooperative project that shared the burden and risks of hull production—had turned into subcontracting work. This created

and growing pressure to produce more and more, faster and faster. Other projects involving the manufacture of stamped shells, geared toward high-volume production, began to take over to keep pace with the

of handpan-making projects springing up all over the world. Unintentionally, the design produced since 2014 became a standard adopted by the majority of new raw material manufacturers.

In 2018, I stopped reselling Shellopan shells. No longer constrained by production pressures, I was able to completely redesign the tooling to improve the quality of the shells produced, and they have since been used by those closest to the Shellopan workshop.



(The Shellopan stamping die in 2011c)

Since 2020, it has become increasingly difficult to purchase high-quality steel on the market, and shell manufacturers have also increasingly turned to producing stainless steel shells (which is easier, less risky, and less expensive than production of nitrided steel shells). The largest volume of shell production and sales is likely carried out in the Netherlands by a company that was among the first participants in the deep-drawn shell project launched in 2014. This company is in a legal dispute with PANArt regarding copyright issues. PANArt's primary claim concerns the lenticular shape, which is entirely linked to the shell shape originally used by the handpan maker. For strategic reasons, this legal dispute led to a nearly 5-year hiatus worldwide in the introduction of new handpan shapes.

In 2025, the legal dispute was still ongoing, and the dismissal of an appeal created a moment of confusion regarding the attribution of copyright to PANArt. This resulted in an outpouring of creativity that had been stifled for several years. Even though these were only prototypes, it showed that artisan makers and even Chinese manufacturers were already ready with promising new handpan designs. It seems necessary for this dispute to be resolved so that

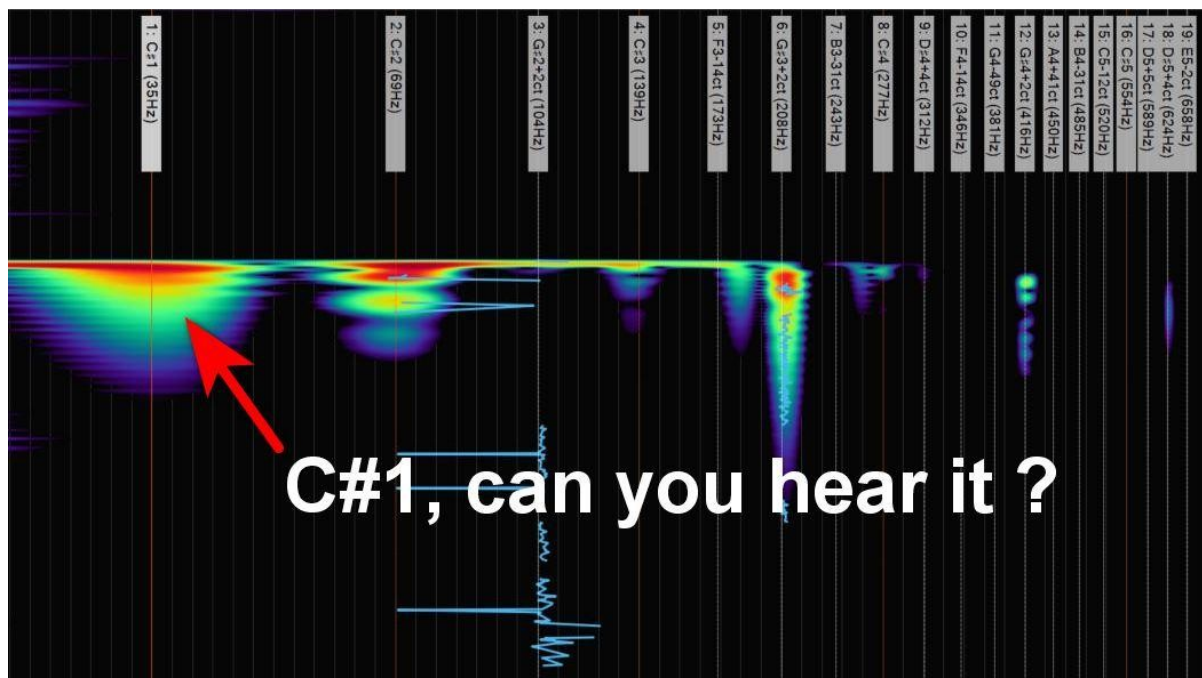
this story of handpan shells—closely tied to makers’ creativity—can continue!



(Two examples of handpan prototypes unveiled in 2025 by Edelweiss and Shellopan)

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3) The “Calabash Pan” by Shellopan: Introducing New Acoustic Possibilities for the Handpan



C#1, can you hear it ?

Click on the images to download the [PDF presentation](#) file [for this Calabash Pan](#).

This study presents the **Calabash Pan** concept, an experimental approach aimed at enhancing the perception of the handpan's low register. The principle is based on the combination of a Helmholtz resonator tuned to the sub-bass register, a dedicated low note tuned to its octave, and notes capable of entering into sympathetic vibration. Together, these elements form a system of coupled resonators designed to enrich the perception of the low register rather than directly increase its acoustic level. A prototype was used to explore the interactions between cavity resonance, membrane modes, psychoacoustic phenomena, and room acoustics. The direct link to the video demo on YouTube is included in the PDF file.

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4) Materials Physics and the Importance of a Scientific Approach

It is possible to build musical instruments simply by tuning off-the-shelf shells, but it seems to me that embarking on a genuine artisanal project related to the physical characteristics of metal should be accompanied by a study of those characteristics. I do not presume to give a lecture on this topic, but to avoid limiting ourselves to simply discussing whether a metal is hard or soft, I can still encourage readers to learn about the following concepts:

- tensile strength
- elongation at break
- elasticity and Young's modulus
- work hardening
- anisotropy
- fatigue strength
- concept of compressive stress
- concept of annealing
- necking phenomenon
- aging phenomenon
- the principles of nitriding

- effects of short, medium, or long nitriding on mild steel, the principles of which, as applied to a metal musical instrument, were detailed in 2000 by PANArt Hangbau AG ([Conference on New Developments of the Steelpan – Paris – May 20, 2000](#)).

Overall, being able to explain the differences

between **rigidity**, **strength**, **stiffness**, and **hardness** is a sign of a good understanding :)

The challenges in our field lie in understanding the impact of all these parameters:

- **on the timbre of a note and of an instrument as a whole**
- **on the way notes are prepared and the instrument is tuned.**

Interesting information can be found in [the research](#) by [PANArt](#) and [Anthony Achong](#). Daniel Bernasconi of SOMA Sound Sculptures in Switzerland has chosen to publish a summary of his research here: "[The Science of Sounding Steel](#)."

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5) The Workshop and Tools

Having a workspace is the very first requirement for making handpans; I've seen workshops ranging from 5 m² to 2,000 m²...

Ours is a 25m² double garage:

Although some expensive tools can be shared, others become very personal—hammers, for example. Everyone will, of course, have their own preferences, but here is a general list of the tools needed to start a handpan-making project

1. **Cleaning the shells:** Scotch-Brite pads (grit 180 to 1000) on an angle grinder; solvent/degreaser such as "essence F" or isopropyl alcohol, used in a well-ventilated area while wearing an A2P3-rated combined protective mask (important).
2. **Nitriding:** A rack that supports the shells and keeps them spaced apart in the furnace helps prevent warping

3. **Stamping of dimples or notes + dimples:** male dies made of steel and/or rubber and female dies made of steel + a press with a capacity of less than 20 metric tons. Here is a tool to help calculate note and dimple sizes: [shellopan - note and dimples ratio.xlsx](#) (right-click and save the file if you have trouble view the file; be sure to read the FAQs at the bottom of the file). Note: Stamping notches at the same time as dimples does not eliminate the need for extensive shaping work; it may even make it more complicated.
4. **Manufacturing the vent for the lower shell:** male and female dies + press <5 metric tons + rotating holding plate + 1 kg body shop hammer
5. **Shaping the shell between the dimples:** clamps to hold the shell's rim + pneumatic rammer (keyword: GS-0838E) + with various heads + air compressor. Note that using a pneumatic rammer is particularly taxing on the body due to exposure to vibrations; some guidelines recommend a maximum exposure time of 8 minutes per day. A vibration-reduction system is therefore essential (update on this topic coming in 08/2024)
6. **annealing:** an oven of suitable size capable of reaching up to 400°C (generally, these are ovens with a minimum power of 4 kW)
7. **Hammering:** set of hammers and mallets ([panmaker.eu](#))
8. **Tuning:** hammers, tuning stand ([DIY plans available here](#); right-click to download the DWG file), audio analysis tool (examples: [Linotune](#), [Overtone Analyzer](#), [Peterson Mechanical Strobe Tuners](#))
9. **Gluing:** A glue gun suitable for thick adhesives is highly recommended; some people use an electric glue gun to make this step easier (Avoid low-quality products for this purpose; they won't be strong enough).

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6) Protecting Yourself: Personal Protective Equipment

Maker activities expose the body to risks of wear and tear, illness, and accidents.

Here are some of the best protective gear options we've found so far

:

- hearing protection: [3M PELTOR X5](#)

- Anti-vibration gloves: [EJENDALS - Tegera 9180](#) (runs a little small; choose one size larger)
- Respiratory protection for grinding or working with solvents: [3M VERSAFLOW TR-600](#) + [M-206 respirator](#)
- Chemical-resistant gloves: [ATG MaxyDry](#)
- Wrist protection: [MID300](#)

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7) Reducing Vibrations When Using a Pneumatic Hammer

For most handpan makers, the work involves using pneumatic hammers, which generate a level of vibration absorbed by the body far exceeding the tolerable limit for a salaried employee. To get an idea of the scale of this, if I were to hire someone in France to do this pneumatic hammering work, the level of vibrations to which they would be exposed would prevent me from asking them to do more than 8 minutes of this work per day. Exposure to vibrations is responsible for disabling occupational diseases affecting muscles, joints, and the nervous system (I'll leave it to everyone to do their own research on this subject).

To protect my own health, I've designed an anti-vibration system that can be adapted to any shaping station. I'm now offering this solution as a group buy to optimize its cost and make it accessible to other makers. The current solution is designed for the "GS-0838E" hammer (1,500 strokes per minute) and all plastic or Delrin heads; it allows you to work with nitrided steel and stainless steel at pressures up to approximately 6 bars (ideally between 2.5 and 5 bars).

This solution is based on an articulated arm that can be anchored to the floor, the shaping station, or even the ceiling (the optimal placement for the arm's base is 45 cm above the rim of the hull being worked on; the arm's base has a diameter of 12 cm and is secured with four M10 screws). It allows for quick selection of the hammer's pivot point while providing resistance to the counterforce generated by hammering impacts. Additionally, it features a mechanism that smooths the hammer's movement in all directions, ensuring precise guidance while absorbing a large amount of vibration. The operator can hold the hammer without clenching their hand around it, which further reduces the amount of vibration transmitted to the body.

For those interested, I welcome visitors to my workshop for testing by appointment, and you can leave with your own anti-vibration kit (please bring your own hammers or, at a minimum, your own M10-threaded heads and your own raw material ready for shaping). The entire kit is manufactured in Europe and is constantly improvement; the price is €3,000 (excluding tax) for the 2026 version. The kit contains the
, the connection parts for the pneumatic hammer, and a foot-operated control pedal. You'll need to handle the arm mounting and air hoses yourself, and add your own pneumatic hammer and hammering heads. Contact me by email for more information (matthieu (at) shellopan.fr).