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Heidegger, art, technology and luthiery

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Luthiery – the building of stringed instruments – is historically a discipline that has to a large extent evaded philosophical inquiry. This article seeks to explore the artistic and technological attributes of luthiery – with reference to guitar builders, in particular – using the thought of Martin Heidegger. His return to ancient Greek philosophy in determining the modes of technology and its initial close association with art will be interrogated and ultimately used to show that in luthiery, as practised by solitary luthiers as opposed to mass-produced factory instruments, both art and technology constitute a mode of revealing in the ancient Greek sense. This mode of revealing will be scrutinised as intrinsically inherent in luthiery by way of the roles of the materials used, the artist, the creation as well as the difference between works of art and equipment. Interviews conducted with leading South African guitar builders will provide substantiating material in this regard.

Heidegger, kuns, tegnologie en ghitaarbou

Die bou van snaarinstrumente is histories 'n dissipline wat tot op hede enige gevestigde filosofiese, tegniese en artistieke raamwerk ontwyk het. Hierdie artikel onderneem om hierdie raamwerke en ghitaarbou in die besonder te ondersoek, met verwysing na die denke van Martin Heidegger. Sy terugkeer na antieke Griekse filosofie aangaande verskillende modusse van tegniek en hul aanvanklike noue verwantskap met kuns sal ondersoek word. In ghitaarbou, in handgemaakte teenoor massageproduseerde, fabriekvervaardigde vorm, sien ons die vereniging van horisonne van kuns en tegnologie deurdat beide 'n modus van ontbloting verteenwoordig. Hierdie modus van ontbloting sal ondersoek word deur die rol van die materiaal, die kunstenaar, die skepping sowel as die verskil tussen kunswerke en gereedskap te ondersoek. Onderhoude met prominente Suid-Afrikaanse ghitaarbouers sal as ondersteunende materiaal gebruik word.

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Luthiery – the building of stringed instruments – is historically a discipline that has to a large extent evaded philosophical inquiry. This may be due to the solitary nature of the pursuit and its incongruity in relation to any established philosophical, technical or artistic realm. This article seeks to explore the artistic and technological attributes of luthiery, with reference to guitar builders in particular, using the thought of German thinker Martin Heidegger, who is widely regarded as one of the most influential philosophers of the twentieth century. His *magnum opus*, *Being and time* (1927), seeks to analyse human existence and its temporality. He identifies a relationship of human beings to space and time in essence different to the mode of existence of things.

Although the subject dominated Heidegger's philosophical thought throughout his career, it is his later work that presents his thought on art and technology, which is particularly applicable to luthiery as a pursuit. Remarks by selected South African guitar builders recorded during interviews conducted in 2004 and 2005 will serve as substantiating material in analysing Heidegger's thought and its relevance to luthiery.[1] This article refers to the interviews as secondary source relative to the views expressed by the luthiers. The interviewees in question are luthiers Garth Pickard, Marc Maingard, Rodney Stedall, Hans van den Berg, Alistair Thompson, Colin Cleveland and Mervyn Davis. They were selected for the initial study by virtue of their experience and the nature of their specialisation – that of classical guitars. The featured luthiers are thus a representative sample of the population of luthiers in South Africa who specialise in varying degrees in the building of classical guitars in private workshops. Their views are used in this article to substantiate a new theory showing the relevance of Heidegger's thought on art and technology to luthiery. Heidegger's writing on art will serve as a starting-point: his view of the nature of art will be investigated by means of a literature study. In addition, Heidegger's analysis of the different modes of

1 These interviews formed part of my doctoral study (Bower 2008) in which luthiery in its South African manifestation was investigated as part of an in-depth comparative study. They were recorded and included as an addendum to the thesis with the full consent of the interviewees in question.

technology will be examined as they distinguish between modern technology and technology in the ancient Greek sense because of a different mode of revealing – that of "standing reserve". This article will not investigate modern technology *per se* as technology in the ancient Greek sense will be shown to be particularly relevant to luthiery as a human pursuit. The luthiers featured personally administer every process in the construction, as opposed to commercial manufacturers who specialise in mass production of guitars and construct guitars by using a "factory line" approach. The latter falls outside the focus of this study in that they represent modern technology. Luthiery's duality in terms of both artistic and technological attributes will be identified in light of the Heideggerian view that they both represent a mode of knowing and revealing.

1. Heidegger and art

Heidegger's interest in art as a subject of critical reflection grew in significance only after mid-1930. In his most substantial work on the topic, *The origin of the work of art* (Heidegger 1950), he rejects two widely held notions:

- that art is concerned only with beauty and pleasure, and
- that a work of art is primarily a thing and that we superimpose aesthetic value on it by our subjective view of it (Inwood 2000: 116).

Clark (2002: 42) comments on this view by stating that "for Heidegger, art for art's sake is the death knell of art. So, ironically, is the very discipline of aesthetics, formed in the eighteenth century as the separate philosophical study of sensuous feeling". What then does Heidegger identify as the true nature of art? In The origin of the work of art he first identifies a "thingly character" contained in all works of art. For him, "there is something stony in a work of architecture, wooden in a carving, colored in a painting, spoken in a linguistic work, sonorous in a musical composition" (Heidegger 1971: 19). What makes a work of art different from other everyday objects that surely contain a similar "thingly character"? In answering this question it is perhaps important to mention that Heidegger (1971: 28-9) identifies three types of things, namely: a mere thing,

equipment and an artwork. He draws attention to the similarities and differences between these three modes of beings in identifying usefulness as a basic feature of equipment which renders it distinct from a mere thing or from a work of art. In brief:

> … an artwork differs from equipment and has something in common with a mere thing. Like a natural rock and unlike shoes, an artwork is not produced for a specific use or purpose, though unlike the rock and shoes it is not 'self-contained' (Inwood 2000: 117).

Self-containment refers to the fact that the work of art is unlike the mere thing and equipment in that it always calls for an observer or interpreter. Heidegger (1971: 67) refers to these observers and interpreters as "preservers".

One all-important Heideggerian view of art which Clark(2002: 43) identifies as "the rejection of mimesis" is the rejection of the notion of art as a form of representation or imitation. Great art, for Heidegger, will always be related to truth as "unconcealment". It should be pointed out that this is a revolutionary conception of truth, as opposed to the hitherto widely-held notion of truth as correspondence. In what Clark refers to as "the singularity of the work" he describes the nature of the work as one that calls for a removal from all relations, thus standing on its own and for itself alone. Heidegger (1971: 40) refers to this "singularity" as follows:

> But the artist's most peculiar intention already aims in this direction. The work is to be released by him to its pure self-subsistence. It is precisely in great art […] that the artist remains inconsequential as compared with the work, almost like a passageway that destroys itself in the creative process for the work to emerge.

This view invariably questions the role of the artist. Accordingly, Clark (2002: 49) concludes that

> to view the art-work as the product of some creative state in the artist is only superficially correct […] So the power of disclosure is not our own – it is not a human creation – but it may be harnessed and harmonized as it shows itself differently in varying kinds of emergent work.

The artist thus emerges not as a creator, but as someone who merely harnesses what the work reveals. This singular nature of the work

distinguishes it in essence from equipment in that it is not absorbed completely in its function. Thus, for Heidegger, the artist is the origin of the work of art, and the work of art is the origin of the artist. This is a logic of undecidability, which refuses to indicate a definite, privileged origin.

Heidegger (1971: 20) identifies another important trait in his analysis of works of art in that "… it manifests something other; it is an allegory. In the work of art something other is brought together with the thing that is made". In searching for the "something other" he refers to his discussion in *The origin of the work of art* pertaining to works of art as opposed to "mere things" and equipment. In this instance Heidegger famously presents two exhibits in his analysis of art, namely that of Van Gogh's painting of a solitary pair of worn peasant shoes, and the Greek Temple of Aphaia, Aigina.

2. Van Gogh's painting of a pair of peasant shoes

For Heidegger this painting reveals that the shoes are involved both with the "world" and the "earth". In this instance, the world refers to human products and activities (in this example the world of the peasant) while the earth is the natural foundation on which the world rests, as is evident in this case by the wear and tear on the shoes. Shoes certainly fall within the sphere of equipment in that they have a certain form and thereby have a certain usefulness. Heidegger (1971: 36) then comments on the "artfulness" of the work:

> What happens here? What is at work in the work? Van Gogh's painting is the disclosure of what the equipment, the pair of peasant shoes, is in truth. This entity emerges into the unconcealedness of its being. The Greeks called the unconcealedness of beings aletheia. We say 'truth' and think little enough in using this word. If there occurs in the work a disclosure of a particular being, disclosing what and how it is, then there is here an occurring, a happening of truth at work. In the work of art the truth of an entity has set itself to work. 'To set' means here: to bring to a stand. Some particular entity, a pair of peasant shoes, comes in the work to stand in the light of its being. The being of the being comes into the steadiness of its shining. The nature of art would then be this: the truth of beings setting itself to work.

For Heidegger it is thus truth and not beauty and/or aesthetics that separates works of art from equipment. Heidegger uses "truth" not in terms of what could be said of an assertion or belief that is not "false", but more in terms of what he calls "ontic[2] truth" or the "uncoveredness" of entities, or seeing things as they really are. A world "comes to pass" when things are uncovered in a new way and organised differently into a meaningful whole. Great works of art, Heidegger argues, play an important role in establishing a world. They do this by letting a truth be seen (Wrathall 2005: 72).

3. The Greek temple

The second exhibit Heidegger presents is the Greek temple. He identifies this specifically as a work of art that is inherently distinct from Van Gogh's peasant shoes in that it cannot be deemed as representational art. The architectural quality of this example makes it especially applicable for the purpose of this article because of the link between architecture and luthiery. Heidegger regards the temple as a work of art in that it sets forth both "earth" and "world". It is important therefore to attempt to establish how Heidegger uses terms such as "earth" and "world" before continuing the discussion on the temple.

3.1 Earth

Earth is irrefutably bound to both works of art and equipment in that a certain "material" is shaped in both, but to different ends. The difference between the two lies in the following:

> The work, Heidegger argues, does not just *set up* [*aufstellt*] a world but also *sets forth* [*herstellt*] the earth. It is [the] site of struggle between these two complementary but adverse powers. World and earth are essentially different from one another and yet cannot be separated (Clark 2002: 52).

2 Kockelmans (1965: 27) distinguishes between "ontological" and "ontic", stating that "the distinction between ontological and ontic is derived from the distinction between being and be-ing. One can regard a be-ing simply as it is. This is the ontic standpoint: it has to do with the Greek *on*, the *ens*, be-ing. But one can also try to understand the being of be-ings, that which makes this be-ing be what it is, its fundamental and constituent structure".

Earth is revealed as earth and is evident in the example of the temple in its natural surroundings as the temple is formed by natural and "earthy" materials. Heidegger (1971: 46) refers to the example of the temple in relation to his discussion on earth as follows:

> [...] the temple-work, in setting up a world, does not cause the material to disappear, but rather causes it to come forth for the very first time and to come into the Open of the work's world. The rock comes to bear and rest and so first becomes rock; metals come to glitter and shimmer, colors to glow, tones to sing, the world to speak. All this comes forth as the work sets itself back into the massiveness and heaviness of stone, into the firmness and pliancy of wood, into the hardness and luster of metal, into the lighting and darkening of color, into the clang of tone, and into the naming power of the word.

Heidegger's view indicates a clear relationship between a work and the material it consists of. The art form does not impose its form on the material, but lets the "earth be an earth" (Heidegger 1971: 46). This unique characteristic in a work's relationship to the material of which it is made warrants special attention. In the case of equipment, the material that the object consists of is "used up" in its functionality. Conversely, in works of art, materials are merely "used" (Heidegger 1971: 47).

It is reasonable to conclude that the material that the work of art consists of remains conspicuous within the work. In the case of equipment, any functional material can be used. An artwork therefore always involves a relationship between earth and world and unlike equipment "composes conspicuous earthy materials into a reposeful form" (Inwood 2000: 121). He also explains the difference between equipment and a work:

> A broom fades into the background of other equipment, its constituent materials 'used up', smothered down into its usefulness. A work is solitary, tensed, and striking. It is especially suitable as a marker of truth. But the very existence of the work cries out for explanation. A work, unlike a tool, bears the scars of its production (Inwood 2000: 121).

In other words, "in equipment, earthy raw materials are 'used up', that is, fused into the artefact so that they are no longer noticeable: it does not matter, and we do not notice, whether shoes are made of

leather or of some functionally equivalent material" but "it matters whether the Parthenon is made of marble or plastic. In one way or another, all artworks set forth earth" (Inwood 2000: 119). In addition, the "earth" element of the artwork signifies that human "shaping" activity is always incomplete in so far as it is an attempt at mastery; the artwork respects the being of the earth, unlike equipment which points towards technology (as an assault on the earth). This characteristic of art is particularly applicable to luthiery.

3.2 World

The earth's counterpart, namely world, is likewise set up in the example of the temple in that the temple reveals a world, the history of a people. Thus for Heidegger (1971: 44) "to be a work means to set up a world". But what is it to be a world? He answers this question by arguing:

> The world is not the mere collection of the countable or uncountable, familiar and unfamiliar things that are just there. But neither is it a merely imagined framework added by our representation to the sum of such given things. The world worlds, and is more fully in being than the tangible and perceptible realm in which we believe ourselves to be at home. World is never an object that stands before us and can be seen (Heidegger 1971: 44).

What exactly does Heidegger mean by "the world worlds"? For Wrathall (2005: 78),

> ... letting the world 'world' means letting it arrange and organize and make coherent and relate all the entities in the world. We do this by actually dealing with the entities around us – by making them, working with them, caring for them.

"World" is therefore a sphere of interpretability.

Clark (2002: 45) describes this Heideggerian view of world by stating that

> … the whole 'world' of the classical Greeks – how all things appeared to them – is projected by the temple, something we may sense even now, though that world has perished. The fact that architecture provides basic shelter already suggests the profound seriousness of art in general for Heidegger, as opening the space in which people dwell and understand things.

Olivier's (1984b: 23) insightful elaboration on Heidegger's "world" initially inquires into this notion by analysing its relation to "equipment". He returns to Heidegger's (1978: 135) insistence that the

> … aroundness of the environment, the specific spatiality of entities encountered in the environment, is founded upon the worldhood of the world, while contrariwise the world, on its part, is not present-at-hand in space.

This calls for an explanatory inquiry into what Heidegger refers to as "present-at-hand" and the consequent notion of "ready-to-hand". Olivier (1984b: 28) explains:

> Heidegger differentiates sharply between the mode of being of 'entities as things that are *present-at-hand*' and the mode of being of man as *Dasein*, which he terms existence. *Presence-at-hand* (*Vorhandenheit* – literally 'before the hand' designates the kind of being of things *other* than *Dasein* (e.g., stones, flowers, mountains, etc.) except when such things appear in a pragmatic context , i.e., as things of use (e.g., a hammer, a chair). The latter are termed *ready-to-hand* (*Zuhanden*).

It stands to reason therefore that the latter notion, that of "ready-to-hand" in its "proper character of equipment" (Kockelmans 1965: 33), is more applicable to luthiery in that an "equipmental" role of luthiery can be argued, as will become clear in due course. Kockelmans (1965: 32) elaborates on this as follows:

> For example, one uses a hammer in the right way without explicitly understanding the proper mode of being of this piece of equipment. In our everyday life we do not know the hammer as 'simply given' and 'merely there', but we know how to use it. By using the hammer in the right way within a certain equipment manifold, *Dasein* has appropriated it in the most suitable way, for a hammer is not there to be looked at, but to hammer with. By using the hammer, *Dasein*, in its everyday concernful dealing with things, has to submit to the assignment that is constituent of this piece of equipment, namely, its 'what […] for'. By using the hammer, *Dasein* discovers its manipulability (*Handlichkeit*), which term clearly indicates the hammer's relationship to the hand (*manus*). A piece of equipment is a thing that is 'ready-to-hand' (*zuhanden*); it possesses 'readiness to hand'.

Having thus arrived at a better understanding of Heidegger's notions of "earth" and "world", it is important to acknowledge the

nature of the relationship between the two. Heidegger (1971: 49-50) summarises this as follows:

> The opposition of world and earth is a striving [...] In setting up a world and setting forth the earth, the work is an instigating of this striving. This does not happen so that the work should at the same time settle and put an end to the conflict in an insipid agreement, but so that the strife may remain a strife. Setting up a world and setting forth the earth, the work accomplishes this striving. The work-being of the work consists in the fighting of the battle between world and earth. It is because the struggle arrives at its high point in the simplicity of intimacy that the unity of the work comes about in the fighting of the battle. The fighting of the battle is the continually self-overreaching gathering of the work's agitation. The repose of the work that rests in itself thus has its presencing in the intimacy of striving.

4. Heidegger and technology

In *The question concerning technology* (1954), Heidegger returns to ancient doctrine and examines the essence of a thing in terms of what that thing is. It should be mentioned in this instance that technology in this article refers to *technē* in its ancient Greek sense. Heidegger also identifies "modern technology" as having essentially a different mode of revealing, but one that falls outside the parameters of this article and luthiery in its handcrafted manifestation. In asking what technology really is, he presents the widely held view that there are two answers to that question in that technology is a means to an end (instrumental definition), and technology is a human activity (anthropological definition). However, he implies that these statements hold true only if observed in terms of the "instrumental and anthropological definition of technology" (Heidegger 1977: 4).

Heidegger then identifies a correlation between technology and art which necessitates a return to *The origin of the work of art*, wherein he inquires about the nature of art and its original connection to technology in relation to ancient Greek thought. He returns to ancient Greek thought on art and what would today be called technology in order to establish the initial undeniable link between the two. For him the correlation between art and technology in the ancient Greek sense lies in the fact that both represent a "bringing forth" or "mode

of knowing". In addition, both technological and artistic pursuits require craftsmanship. He reminds one that the Greeks referred to art and craft by the same name, *technē*, and that they "call the craftsman and the artist by the same name, *technites*" (Heidegger 1971: 58).

This revelation causes Heidegger to acknowledge the problem in identifying what renders them distinct. To this end, he concludes that the nature of what is created determines the nature of creation, in other words, the end determines the means. Heidegger not only views the artist as the origin of the work of art, but significantly, the work of art as the origin of the artist. Thus, the nature of creation can be said to be artistic if what is created can be considered art, even though the creation process could be "technologically" inspired or similar to the process of creating equipment on some level. Succinctly put, "… the nature of creation is determined by the nature of the work" (Heidegger 1971: 60).

After acknowledging the instrumental and anthropological definitions of technology in *The question concerning technology*, Heidegger (1977: 6) continues by questioning the "essence" of technology and thus arrives at the four causes of technology with reference to its instrumental definition, namely the matter, the form, the end and the working cause.

He famously uses the example of a silver chalice to show how "the four causes are the ways, all belonging at once to each other, of being responsible for something else" (Heidegger 1977: 7). For Heidegger (1977: 10-1), these four ways are responsible for "bringing something forth":

> It is of utmost importance that we think bringing-forth in its full scope and at the same time in the sense in which the Greeks thought it. Not only handcraft manufacture, not only artistic and poetical bringing into appearance and concrete imagery, is a bringing-forth, *poiésis*. *Physis* also, the arising of something from out of itself, is a bringing-forth, *poiésis*. *Physis* is indeed *poiésis* in the highest sense. For what presences by means of physis has the bursting open belonging to bringing-forth, e.g., the bursting of a blossom into bloom, in itself (*en heautoi*). In contrast, what is brought forth by the artisan or the artist, e.g., the silver chalice, has the bursting open belonging to bringing-forth not in itself, but in another (*en alloi*), in the craftsman or artist. The modes of occasioning,

> the four causes, are at play, then, within bringing-forth. Through bringing-forth, the growing things of nature as well as whatever is completed through the crafts and the arts come at any given time to their appearance.

Having thus established that it is as revealing, as opposed to manufacturing, that *technē* is a bringing-forth, Heidegger (1977: 14) differentiates between modern technology and technology in the ancient Greek sense in that modern technology "does not unfold into a bringing-forth in the sense of *poiésis*". As this article focuses on technology in the ancient Greek sense and its relevance to luthiery, it is important to examine the technological claims made by luthiery with reference to the original instrumental and anthropological definitions of technology.

5. Luthiery as art and technology

In his essay "The question of human dwelling: architecture between art and technology", Olivier (1984a: 30) poses the following question:

> … is architecture indeed an art? Does its unavoidable functionality not remove it from the realm of the arts? No other art is comparable to architecture in terms of the practical service it performs in society. If anything, it tends towards engineering, and therefore occupies an uneasy position between the latter and art.

He then justifies the inquiry on this topic with the following:

> Caught between engineering and art, modern architecture has been unable to achieve a convincing and lasting reconciliation of pragmatic, technological and aesthetic considerations (Harries 1975: 14).

Luthiery is in many respects similar to architecture in that it occupies this so-called uneasy position between engineering and art. This will be shown by investigating luthiery's artistic and technological attributes in the following sections. It is important to note that luthiery is more than anything else functional, which some would argue also removes it from the realms of art. Another strong similarity between architecture and luthiery is the use and design of space as a habitation, in one case for human beings, in the other sound. The reliance on design in both disciplines highlights their similarity on a number of levels.

If luthiery is indeed functional, to what extent can and should it be reduced to a functional pursuit and how does that impact on the discipline as an art form? Should it aspire to be an art form or even be considered as such?

6. Luthiery and art

When considering the merit of luthiery as an art form, one is forced to start by examining the question at the core of aesthetic reflection: what is art? For Rosen (2000: 188), most of the art of the postclassical and premodern period had the function of being subservient to religion, especially in architecture and music.

The eighteenth-century European philosophical movement, the Enlightenment, which sought to put humankind's reason and rationality at the centre of all development, also profoundly influenced the reflective attempts to determine the nature and function of art. Modernity viewed the aesthetic dimension as increasingly independent. Questions on the nature of art remain contentious and have been the subject of reflection of many a philosopher. The purpose of this article is not to discuss the nature of art *per se*, but to attempt to find a role, if in fact there is one, for luthiery within the artistic realm. Heidegger's view on art is distinctly removed from the realm of aesthetics which means that art is not concerned only with beauty and pleasure. In view of this preceding discussion on Heidegger and art, one can inquire into the merit of any possible artistic claims luthiery might have in how it is practised by some luthiers.

As referred to earlier, one should distinguish between mass-produced guitars built in "factories" for commercial exploitation, often making use of mechanised equipment, and luthiery as a pursuit practised by the luthiers who produce professional concert instruments. The latter instruments are all handcrafted by one person who administers every process in the construction, often in a small workshop with few if any assistants. In this instance, a parallel can be drawn between luthiery and architecture in that there are different but comparable modes of existence within both disciplines. On the one hand, it is possible to identify an artistic manifestation of both,

and on the other, the opposing extreme, that of the mass-produced, technologically manipulated phenomenon. In his critique of architecture, Olivier (1984a: 30) cites the work of Buckminster Fuller or Hans Hollein as examples of the former and "any drab, architecturally largely uniform suburban zone" as an example of the latter. Thus, for the purpose of this article, luthiery will be considered in its more personal, handcrafted and possibly artistic manifestation as described earlier.

First, it should be obvious that it is possible to identify the "thingly character" of a guitar as work of art. The woods featured in the instruments under discussion result in a distinctly "wooden" character that permeates the essence of what we know a guitar to be. This alone does not, however, distinguish the guitar from any other wooden constructions as art form. For that one needs to consider what Heidegger calls "self-containment". Even though the guitar is built with a specific purpose in mind, that of creating music, which will arguably render it no different from equipment, it does call for interpreters or "preservers". By its very nature a guitar calls for an interpretation of its visual and aural qualities. one cannot fully appreciate, interpret or "preserve" the artistic character of the guitar if one does not actively engage in listening to what is produced in terms of sound. In other words, it can be stated that, although guitar works of art always involve a degree of visual aesthetic and artistic appeal, the essence of a guitar as a work where truth is "uncovered" only "opens up" once the sound is produced in the presence of observers. These observers whom Heidegger refers to as "preservers" can take the form of viewers, readers or in the case of a guitar as work of art, an audience who aurally functions as "preservers". Although a guitar has a degree of visual aesthetic appeal, it is mainly in the aural perception of the qualities of the instrument by "preservers" that the artistic nature of the work can be identified.

Luthiers in general are aware of this fact, as is evident in the following two South African luthiers' comments:

> To me, the proudest moment is when I build an instrument and I play it myself, but it sounds ugly and then I take it to someone like Charl Lamprecht, who plays on it and he makes it sound beautiful (Bower 2008: 224).

To hear somebody who is a really good player play one of my instruments and the instrument is sounding like you hoped it would sound, is enough (Bower 2008: 214).

Olivier (1987: 17) adds that "Heidegger thinks of the relationship between the artwork and its audience as a kind of dislocation with regard to everyday experience [...] for him, truth 'happens' or is 'at work' in the artwork in the form of a conflict or struggle between the moment of self-disclosure or 'world' and the oppositional moment of self-seclusion or 'earth'". He concludes:

> In ordinary language this means that works of art, whether literary, sculptural, architectural, cinematic or whatever, articulate (i.e. 'open up') certain possibilities of being, cognition, action, decision or attitude. Alternatively, they embody different values which, once made accessible to humankind, do not leave their own world – as distinct from that of the artwork – untouched. And, keeping in mind the moment of concealment in the work, this does not imply complete theoretical or practical transparency (Olivier 1987: 17).

The role of the luthier as artist needs to be investigated in this instance, bearing in mind the initial goal of determining the artistic significance of luthiery. The singular nature of the work of art becomes clear when one views the luthier not one-sidedly as creator, but as someone who allows the work to "project the terms whereby it could be received" (Clark 2002: 51). Luthier Mervyn Davis describes this phenomenon by stating that in a way the guitar's design imposes its will on him. It is obvious how the artist, in this case the luthier, sets forth the material, in this case the wood, through the guitar, thereby allowing earth to be earth without imposing his/her will on it at the expense of the material.

Another important observation that must be made when investigating luthiery as an art form is the one pertaining to what Heidegger calls "earth" and its relation to "world". Few would argue that the hand-crafted guitar presents itself as an object that sets forth both earth and world. The earth is revealed in the earthy materials of which it is constructed. In this instance one identifies a merger of two possible ways in which a work sets forth earth identified by Heidegger (1971: 46), namely in "the firmness and pliancy of wood" as well as "the clang of tone".

What emerges is that, unlike equipment, the constituent materials of the guitar are not used up and lost into its usefulness and that the wood used in the construction of the guitar cannot be replaced by another functionally equivalent material. This becomes evident in the importance both luthiers and players give to the visual and acoustic selection of wood. A guitar as work of art would not set forth earth in the way it does had it been built from plastic or other material. Consider Maingard's comment with reference to his favourite Brazilian rosewood:

> It does have an aura about it. It is a wonderful tone wood and it is beautiful. You just cannot deny the beauty of a wood like that. There's no other wood that looks like that and to go with its looks is that beautiful tone (Bower 2008: 250).

Heidegger's rejection of the notion of the artist as the prime source of the work becomes particularly applicable to luthiery in the sense that, for Heidegger, the artist merely listens and responds to the work's emerging possibilities and force (Clark 2002: 50). In light of this, consider the following luthier remarks:

> I feel a piece of wood, I thicken it to what I think it should be, I listen and I thicken it to that, what it tells me (Bower 2008: 245).
>
> 'n Mens ontwikkel oor die jare 'n gevoel om sekere dinge te kan voorspel. Mens sal nooit alles weet wat daar binne aangaan nie (Bower 2008: 264).[3]
>
> If I can be silly: the wood speaks to me. It's nothing you can put your finger on … You're supposed to have this instinct/sensitivity. Instinct is a strange thing … (Bower 2008: 219).
>
> To me the tactile feel of the wood you work with tells you what it's going to do (Bower 2008: 212).
>
> You need to know what that specific piece of wood requires to know what to do with it (Bower 2008: 252).
>
> Bending wood is something that you learn to get a feel for. You can't tell someone what to do, it's a feeling. The wood starts to move in your hands: it's a magic thing, but you have to understand it (Bower 2008: 280).

3 One develops a feeling and ability to predict certain things over the years. One will never understand everything that goes on inside.

Having established that a hand-crafted guitar can be regarded as a "marker of truth" in the way it sets forth earth, let us now consider earth's counterpart, "world" as encountered in a guitar as work of art. In the preceding analysis of world as phenomenon encountered in Heidegger's Greek temple it became clear that a world was opened up to us – the world of the classical Greeks and how things appeared to them.

Can we then identify a specific world opening up in observing a classical guitar? If so, what would this entail? A number of recently published studies document the history and development of the modern-day classical guitar and the emergence of the instrument as it is presently known.[4] These studies also deal with the more important traditional construction methods and variations on these as well as important luthiers and their contributions to luthiery. It could be argued therefore that this is precisely the world that is opened up to the observer of the classical guitar: the history of an instrument's development. This includes all the failed and successful experiments conducted, the interactions between famous performers and luthiers, the emergence of a "traditional" school of construction, the fluctuating popularity of the guitar as concert instrument, the different woods used and their selection, the changing and growing repertoire of the instrument and contemporary developments. The luthier's act of constructing a guitar can thus be viewed as a response to the need for guitar music in the "world" opened up by the classical guitar. On the contrary, luthiery calls forth the world of guitar music through its need of observers or "preservers" who testify to its artistic nature as explained earlier.

Having thus established the artistic nature of luthiery as practised by the luthiers described earlier by way of a Heideggerian perspective, a similar perspective can now be used to investigate the role of technology in luthiery.

4 The reader can refer to Bellow 1970, Evans & Evans 1977, Jahnel 1981, Summerfield 1996 and Turnbull 1991.

7. Luthiery and technology

Notwithstanding the practical interaction between luthier and player, it must be acknowledged that luthiery in essence will always remain a solitary pursuit to a large extent. The virtually infinite number of variables ranging from physical dimensions to choice of wood somehow relate to one person – the luthier – and the choices s/he consciously or unconsciously makes in this regard. All have a profound influence on the final outcome of the instrument. Shaping and assembling pieces of wood to a specific, desired form inevitably involves technology on some level, but the question arises as to what extent technology plays a role in luthiery. Heidegger initially reduces technology in ancient Greek terms to its two most basic, widely-held definitions: a means to an end and a human activity. Few would argue that these two basic definitions are applicable to luthiery. Luthiery is clearly a means to an end, evident at a most basic level in the need for someone to construct musical instruments. Secondly, technology as human activity is self evident in the case of luthiery (as it is in fact in almost any other human activity), so much so that Heidegger initially acknowledges instrumentality as the fundamental characteristic of technology. But upon reflection, he later warns against this assumption:

> If we inquire, step by step, into what technology, represented as means, actually is, then we shall arrive at revealing. The possibility of all productive manufacturing lies in revealing. Technology is therefore no mere means. Technology is a way of revealing. If we give heed to this, then another whole realm for the essence of technology will open itself up to us. It is the realm of revealing, i.e., of truth (Heidegger 1977: 12).

Heidegger therefore does not discredit the notion of the four modes of causality, but stresses that it is ruled and contained within the more important notion of revealing which contains both end and means. The fourfold causality can in this instance be applied as a practical illustration of the mode of technology used in luthiery before inquiring into the mode of revealing that opens up in this process.

The matter out of which the guitar is made is wood. Heidegger would therefore argue that the guitar is indebted to the wood. Con-

comitantly, the musical instrument is indebted to the aspect or form of "guitarness" because of the link between the physical manifestation of what is created and its mode of sound production. A third causality is evident in that the guitar is confined within the realm of musical instruments. Finally, there is a fourth causal participant in the responsibility for the finished instrument, namely the luthier. Heidegger (1977: 8) emphasises that the artist, in this case the luthier, "considers carefully and gathers together the three aforementioned ways of being responsible and indebted".

These four ways of being responsible thus result in the finished guitar. It could be said that they "bring something into appearance. They let it come forth into presencing. They set it free to that place and so start it on its way, namely, into its complete arrival" (Heidegger 1977: 9). He regards this "bringing-forth" as coming to pass when something concealed comes into "unconcealment", thus returning to his original notion of technology being a way of revealing. In addition, Heidegger (1977: 13) mentions that *technē* is also a name for "knowing in the widest sense [...] to be entirely at home in something, to understand and be expert in it. Such knowing provides an opening up. As an opening up it is a revealing".

The essence of technology as practised by the luthier lies in this: gathering together in advance the form and the matter of the guitar, "with a view of the finished thing envisioned as completed, and from this gathering determining the manner of its construction" (Heidegger 1977: 13). This implies an openness and sensitivity crucial on the part of the luthier, thus enabling him/her to "envision" the "finished thing", namely the guitar and the desired sound. Thus, for Heidegger (1977: 13) "it is as revealing, and not as manufacturing, that *technē* is a bringing-forth". The luthier's active knowing and understanding the workings of acoustics, sound production principles and the intricacies of woods, and being able, from this, to envision the finished instrument, constitutes the true essence of the kind of technology relevant to luthiery.

8. Conclusion

This article aimed to shed light on the artistic and technological merits of luthiery, with specific reference to the building of guitars. This research points to the fact that luthiery, as practised in the form of the production of handcrafted instruments, manifests itself as a symbiosis of artistic and technological pursuits. Martin Heidegger's writings help one to gain a special understanding of the nature of their symbiosis.

Luthiery's artistic nature is investigated by using Heidegger's examples of the Van Gogh painting and the Greek temple. The former displays its artistic nature in the way it "opens up" truth and is shown to be evident in guitar building. The latter is made manifest in guitar building in the way it sets forth earth. Through Heidegger's eyes, it is the struggle between earth and world that irrefutably binds guitar building to the realm of art.

Secondly, the revealing nature of guitar building (specifically regarding a certain kind of "knowing") points to its technological nature in the ancient Greek sense. Heidegger's notion of the fourfold causality was shown to be present in the manufacturing of guitars.

More profound than the fact that both art and technology are present in luthiery is the fact that these two realms, often regarded as opposites, manifest themselves in luthiery in surprisingly similar ways, namely through revealing, unconcealment and opening up. This affirms ancient Greek thought where the notion of *technē* acknowledges its indivisibility.

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