

Wendy Carlos, composer and Grammy winning recording artist, is best known for her pioneering efforts in popularizing electronic music and the then strange though primitive sounds of the Moog synthesizer as heard on her best selling classical album "Switched-On Bach". In recent years she has moved on to use new technology and to original compositions, including film scores for Kubrick's "A Clockwork Orange" and "The Shining" and Disney's "Tron," and music for conventional ensembles as diverse as the Kronos Quartet and the Boston Symphony Orchestra.

In her latest work, Carlos breaks through the bounds imposed by traditional orchestra and electronic sounds as well as conventional tuning scales. "Beauty In The Beast" derives from basic music forms a new music which defies categorization, as it allows one's imagination and emotions to run free, unfettered by any preconceptions. As some listeners have put it, this is like a "soundtrack to a dream", just ready to be experienced!



"I am always doing what I cannot do yet, in order to learn how to do it."

—Vincent van Gogh

ABOUT "BEAUTY IN THE BEAST"

Did you ever notice that there's *beauty* in every *beast* of the earth, a quality of awesome gorgeousness, just below the fearsome exterior? Consider the carnivorous jungle tigers, the majestic elephants of the savanna, or the white-plumed birds on the cover of this album. All are decidedly "beastly", and yet all are in truth beautiful.

The same sort of dual vision is manifest in other worlds besides nature. A clattering Model-T Ford is one example, and a complex digital synthesizer as used for this album is another. The "familiar-yet-strange" timbres which you will hear have sort of a beautiful/beastly quality, and the same is certainly true of all the unfamiliar tunings used herein. Because of this, "Beauty in The Beast" is the most unusual music I've ever heard, yet I wrote it! How can this be?

To begin with, this has been the most exciting musical project in my life. The year and a half to compose and record this music (following the two years before that, laying the essential groundwork with "Digital Moonscapes") have produced results far beyond my ideals when I set out to avoid the usual constraints imposed by conventional scales, tunings, and instrumentations.

In truth, if you put aside the traditional equally tempered scale, and also standard acoustic and electronic timbres, and assemble a composition and performance instrument based on *anything* else, that alone guarantees unusual results. But if you are really lucky you will find yourself located at the right time and place to have an instrument capable of producing (to say it simply) *whatever the human ear and brain like best*. All theories will perforce remain secondary to hitting this target. How you use such a tool is less important than the sounds and music you end up with. For me, the creation of this particular recording seemed to come from a deep emotional wellspring within me as it was composed, as trite as that may sound in our day and age.

Even though the music *sounds* different from anything else yet produced, beneath this surface impression lie models as familiar as the earth around us. Since any artist alive today is inescapably surrounded by all the known art of the world, past

and present, there is no way this side of nihilism to avoid being influenced by what others have done. Better still to incorporate a broadly eclectic point of view, and let whatever moves *you* be your inspiration. I've taken ideas from many disparate cultures, heeding Debussy's dictum: "whatever pleases my ear," and filtered it all through the wonderful new musical means at my disposal and through my decidedly Euro-American post symphonic composer skills.

This is all heady stuff, being able to open a lot of previously locked doors, and avoiding by definition all the overused *cul de sacs* of late 20th century music. Where once I regretted being a composer at this time in history, I now find myself delighted in being fortunate enough to escape the previous claustrophobic limitations. Earlier, while composing "Digital Moonscapes" and building all the hundreds of acoustically modeled digitally synthesized voices, I had hoped things might lead into the unexplored territories of *any possible timbre and any possible tuning*, and all the many potential rewards. But that's all it was then—just a hope.

Just after that album was completed, our favorite digital engineer, Stoney Stockell, found a way to give me access to the frequency tables in our custom Synergy machines (which he had largely been responsible for developing over the years). Then through trial and error I began to write some computer programs which can retune these instruments to literally *anything*. I had already been compiling hybrid voices from my orchestra replicas (the "LSI Philharmonic" as we call it) and produced such curiosities as a *bowed piano*, *woodwind glockenspiel*, *sustained timpani*, *metal marimba* and *percussive violin*. With the new tunings, it all came together, like choreography by Ballanchine, a yin/yang of musical possibilities!

You now hold in your hands an album of calculated guesses as to the music of the perhaps not too distant future, an encomium to the past and present earthly made (but no longer earthly bound) music. A music which at once terrifies with its beastly strangeness, while it seduces with a never-before-heard beauty. Enjoy!

ABOUT THE MUSIC

INCANTATION—In Himalayan monasteries monks gather in solemn dignity to bestow upon God a sound so awesome that no mere mortal can be left unmoved. In this fantasy, prayer-wheels, Tibetan bells are combined with subharmonic voices and an orchestra of drums, cymbals, horns, bells, shawms, and several kinds of horns, all the tritone rich authentic scales from Bhutan and Tibet.

BEAUTY IN THE BEAST—The title cut of this album, this compact piece whimsically blends the quasi grotesque ideas with a romantic theme in the best "Ballet Russe" style. The new scales used in all of this are quite odd: the first heard called *Beauty* splits the perfect fourth into two equal parts (actually eight equal steps of nearly 64 cents each); the second, *Alpha*, does the same to the minor third (four equal steps for 78 c. each). While both scales have nearly perfect triads (two remarkable coincidences!), neither can build a standard diatonic scale, and so the melodic motion is strange and exotic. The two forces, *beast* and *beauty*, slip back and forth, and things are never quite what they seem.

POEM FOR BALI—While in Bali recently (chasing a total solar eclipse) I fell in love with this island, its people and culture, and their love of the arts. (Note that the cover painting is from Bali.) I still cannot get the sound of its music from my ears. *Poem for Bali* is an homage, written to express these feelings and emotions. The ten section continuous work is composed wholly in the *Pelog* and *Slendro* tunings used in their rich gamelan tradition, although it is all filtered through my decidedly western point of view. Section four is based on the Barong dance, and I've performed it in a replica of the Gamelan Orchestra. Section nine is in fact a mini-concerto for such an orchestra accompanied by a western symphonic orchestra (which sadly can't be done in the acoustic world due to tuning conflicts). The rest is wholly an impressionistic painting of moods sympathetic with this magical island.

JUST IMAGININGS—It's really exciting that the computer controlled digital synthesizer age has arrived. We now can "have our cake and eat it too!" In the past we had the choice of perfect tuning (just intonation), or totally free modulations (equal temperament), and most of us chose the latter. This composition is all perfectly tuned in a "Super-Just" scale I call the *Harmonic Scale*, which continues past the 5th harmonic (of just) all the way to the (prime) 19th! And then, in a 144 notes per octave slight of hand, it modulates all over, including two circles of fifths, at the climaxes to section one (Kaleidoscope) and three (Dreams). Section two (Chroma) combines polytonal clusters of "super-just" chords with a busier foreground. This contrasts with the more upbeat first, and "stream of consciousness" third sections, which are etudes in contrast and surprise.

THAT'S JUST IT and **YUSAE-AISAE**—These two closely related pieces, written immediately before *Just Imaginings*, are also in the *Harmonic Scale*. They are my studies in learning how to control the *Harmonic Scale*, before I began to modulate with it. Both also explore some of the more unusual melodic intervals of this scale, which while more acoustically satisfying to the human ear than the arbitrary intervals of equal temperament, have remained difficult to obtain up until now, and so seldom heard. That's too bad, because we've really been deprived of all the gorgeous "exotic" modes and harmonies of tuning in the *natural* way, instead of the mathematical way we've

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"exotic" modes and harmonies of tuning in the
natural way, instead of the mathematical way we've

been locked to these past 300 years since Papa
Bach adopted it as the best available compromise.

On *That's Just It* the point of departure is an
imaginary jazz sextet, with solo trumpet and tenor
sax. *Yusae-Aisae* portrays some Hollywoodesque
Mid-Eastern marketplace. While both pieces use
exactly the same tuning, to Western ears the slithery
arabesques of *That's Just It* may sound peculiar,
but the latter quite authentic. I suspect that an Arab
musician would hold the opposite opinion: the
Harmonic Scale is no more an Arabic tuning than
Chow Mein is from China!

C'EST AFRIQUE—Though I've been in Africa
only twice in the last dozen years, I find the many
cultures and musics of the African people every
bit as captivating as those of Bali. This piece is my
first attempt to try to capture but a tiny portion of
their art. It is in four brief sections, all in the au-
thentic tunings, which are not too different from
our own. There can't be any more rhythmically
sophisticated music than African, and that's what
these four sections, with their quasi realistic
timbres and extrapolations, are about. (As with
Gamelan sections of *Poem For Bali*, they were
really hard but fun to play!)

A WOMAN'S SONG—By combining ideas from
several regions we arrive at the arresting final work
of the album. The melody is based on a song by
a Bulgarian Shepherdess (the woman of the title),
called *Izel je Delyo Hajdutin*. To the melody I've
added the tambura and dilruba from India (re-
placing the Bulgarian bagpipes), and an appropriate
raga tuning. Western horns and crotales, plus sev-
eral hybrid timbres round out the orchestration.
While no synthesizer is yet any match for Valya
Balkanska's electric mezzosoprano (whose perfor-
mance is included on the first Voyager record),
the instrumental version here forms an appropriate
haunting conclusion to our beastly beauties.

—WENDY CARLOS

All the music and sounds heard on this recording were directly digitally generated. This eliminates all the limitations of microphones, the weak link necessary in nearly all other digital recordings, including those which employ "sampling" technologies.

CREDITS:

Produced & Engineered by Wendy Carlos
Assistance, Ideas & Logistics by Annemarie Franklin
Customized GDS & Synergy Digital Synthesizers
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Transfers by Rhonda Epstein Schoen
& Mastering by George Marino at Sterling Sound
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Cover Painting by W. Y. Weca, Ubud BALI
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