

SIDE 1

- Band 1 — FROGGY-WENT-A-COURTING
300 TURKEYS
Band 2 — VIHUELA AND WOLF PACK NO. ONE
Band 3 — CELLO AND WOLF PACK NO. ONE
Band 4 — VIHUELA-CELLO AND PACK
Band 5 — VOICES AND WOLVES
Band 6 — CELLO AND WOLF PACK NO. TWO
Band 7 — VIHUELA AND WOLF PACK NO. TWO
Band 8 — SILENT NIGHT
(AHKUHACHI AND WOLF)

SIDE 2

- Band 1 — ORCA POD VOCALIZING
Band 2 — THE LESSON
Band 3 — THE LESSON REPLAYED
Band 4 — ORCAS AND WATERPHONE
Band 5 — HEAVY METAL
(GUITAR/ORCA)
Band 6 — MUSIC TO EAT THANKSGIVING DINNER BY
3 FLUTE PLAYERS AND 300 TURKEYS

ALBUM NOTES:

Some interpret these pieces as studies in animal communication. Others see them as a new trend in avant-garde music. Fortunately, the very best examples of human/animal dialogue are also the most musical. Also, there's not much "avant-garde" about it; the so-called "primitives" have been doing it since before history. This record is merely an update, fit for the times. These pieces differ from other touted interspecies pieces in that these were mostly recorded in real time. Unless otherwise noted, there are no overdubs conveniently layered on in a studio. What you hear is what happened in the sea or in the bush. The big question for me is always whether or not the animal would be playing the same sound without my own musical stimulus. After ten years, I've become convinced that there are many animals, especially wolves and orcas, who possess many musical "rules" concerning modulation and resolution. Many of the rules offer valuable advice for human musicians. For example, wolves will stop howling if someone is out of tune. Enough said, in general. Here's some of my own sentiments about the specific pieces in this album. Enjoy!

—Jim Nollman

Master remixed at: Tres Virgos Studios, San Rafael, CA.
Engineer: Robin Yaeger
Produced by: Jim Nollman
All instruments by
Jim Nollman except:
Sybil Glebow: Cello, Flute.
Liza: Flute

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PLAYING MUSIC WITH ANIMALS

The interspecies communication of
JIM NOLLMAN with
300 Turkeys, 12 Wolves, 20 Orca Whales

DESCRIPTIVE NOTES ARE INSIDE POCKET

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PLAYING MUSIC WITH ANIMALS - JOHN NOLLMAN

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The interspecies communication of
JIM NOLLMAN
with **300 Turkeys, 12 Wolves, 20 Orca Whales**



JIM NOLLMAN IN THE WATER WITH A BULL ORCA, PHOTO BY PETER THOMAS

COVER DESIGN BY RONALD CLYNE

PLAYING MUSIC WITH ANIMALS

The interspecies communication of
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Photograph by Dewitt Jones

As far back as Genesis, Western Man has nearly always depicted the animals as something less than human; placed upon the Earth for man's utility and enjoyment. But what was, at best, a dubious ethic for the ancients; has of late, with the advent of overpopulation and technological proliferation, become our very undoing. We humans are a species in control of our environment; yet seriously out of sync with the currents of the Natural Order. Lately we have been directly responsible for sending species after species into the oblivion of extinction, without a clue about how to halt the descending spiral.

Over the past twenty years, as the environmental movement gained steam, many of us have become quite aware that something drastic must be done. Yet all too often the activities

of the various organizations flying the environmental banner seem like so many Dutch boys with a finger in the dike as water pours over him from above. Short-term animal saving campaigns certainly postpone the slaughters of the moment, but all too often offer no long-term solutions or even much hope. They purvey gloom. Certainly we need to continue such campaigns; after all they do save particular species during a period of crisis. But concomitantly, we need to develop all-encompassing educational tools which will effectively alter Mankind's attitude towards the animals. We need a universal Ethic, and we need it now; so that the next generations may replenish the world of their forebears.

Perhaps the most farsighted and accurate environmental Ethic is that known as

Interdependence. Simply defined: all of the species, resources, and functions of the Earth aid and abet the growth and continuity of all the rest. Life on Earth is thus a complex web of interdependent causes and effects. Poison the insects and you kill the fish, the soil, and the predatory birds. Eventually, given enough time, Man himself, succumbs. That is the bad news of Interdependence. But there is also much good news.

Since all the creatures are interdependent with us as well as with one another, we must begin to meet and acknowledge them with a bit more dignity than humanity has ever yet considered. Within this worldview, Man is no longer the crown of creation -- nature itself is the crown. Likewise, every creature possesses an independent intelligence separate from, yet totally integrated with human intelligence. The world itself can only be perceived as a unity upon which we all live and die, grow and collaborate. Buckminster Fuller has rightly called it "Spaceship Earth".

If these ideas at first seem a bit overblown and even precious, remember that Interdependence is the very cornerstone of natural law. If this law can somehow be transmuted into a human societal ethic, it becomes an important tool for forever altering the destructive course of modern exploiting human society. Likewise, any activity which promotes the interdependent worldview demands serious consideration and promotion.

INTERSPECIES MUSIC as developed by Jim Nollman, clearly promotes an interdependent relationship with the creatures of planet Earth. Music is communication; certainly more universally understood than any single human language, and, arguably, as profound. Interspecies music expresses the clear and simple example of humans attempting to communicate directly with other living creatures. Like any music it communicates the energy exchange of harmony. And like any successful harmony, the exchange is sustained as long as the participants coexist in the here and now.

What this suggests in actual practice is that the human must first acknowledge the other animal as his or her equal. In many cases the human must sit with the animal as a student sits with a teacher. Interspecies music is certainly one of the most direct methods yet developed within the framework of human artistic endeavor, for expressing the crucial ethic of interdependence.

(To the Editor: Please print the enclosed article INTERSPECIES MUSIC reprinted, with permission from CoEvolution Quarterly; in this space)

INTERSPECIES MUSIC
by Jim Nollman

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The CoEvolution Quarterly

SIDE ONE:

1. Froggy-went-a-courtin'. I recorded this one sitting in a farmyard surrounded by 300 tom turkeys. The toms respond to pitch and to volume. When a certain relative intensity is reached, each turkey emits a single gobble. A large flock can be manipulated to respond in unison, no different than a basketball player getting a crowd to erupt by sinking a crucial basket. The trick to the process is riding the shared musical energy without aggravating the turkeys. I was once attacked by a flock for getting too frenetic. But if the music is subtle, carefully modulated, accenting those gobble sounds with space between them for the turkeys to compose themselves, one can create a shared music, with a turkey chorus answering for hours at a time. For this piece I used the traditional Scottish ballad, which symbolizes the Walt Disney school of animal anthropomorphism.
2. Vihuela and wolf pack #one. The vihuela is a jumbo, twelve-string mandolin; here played in bottleneck style. The wolves were in a big open cage at a wolf preserve; and acted like a family unit. People buy wolf puppies as cute; and then must give them away when they grow into real wolves. Thus the preserve. The wolf pack reminded me of Gregorian chanters, singing an age-old song without much change. They were not given to much improvisatory call and response and would promptly stop singing if we humans got too radical in our own response to them. I felt honored whenever they would sing in harmony with my own playing.
3. Cello and wolf pack #one. Master cellist Sybl Glebow playing much lower tones than my own. This is her first attempt.
4. Vihuela-Cello and pack. It was very difficult for Sybl and I to play together without upsetting the wolves. We spent five days at the wolf preserve; and it was probably not enough time for multiple stimulus to succeed in concert. Short but sweet.
5. Voices and wolves. I sat at the feet of the dominant male wolf, called Arctic; and let him teach me how to sing in harmony. Finally it succeeded so well, that I wonder if my own voice is discernible at all. The piece ends with a cymbal crash.
6. Cello and wolf pack #two. As time progressed, the wolves sang for longer periods; allowing us to extend the duration of any single song. We intuited that the wolves had different kinds of songs for different times of the day, and different leaders for each song. Not that different than the Indian raga system. This one is just before sunset.

7. Vihuela and wolf pack #two. In terms of duration this is my most successful effort. Both Sybl and I wondered how these pieces would have developed if we had the time to spend five years with these wolves. In just five days we noticed a marked development in both the harmonies and their own acceptance of us. The Eskimos claim that they can understand the language of the wolves. I am convinced that such a skill is in the offing. It saddens me to think that there is a wolf extermination program in Alaska.

8. Silent Night(shakuhachi and wolf). This piece was recorded very early in the morning; a dialogue between one member of the wolf pack and me, playing a Japanese flute. Is it merely coincidence that the wolf raises the pitch up to the fourth step, just when the song, and rules of musical resolution, call for such a change?

SIDE TWO:

1. Orca Pod vocalizing. Orcas, killer whales, sometimes called the wolves of the sea, live in organized, caring social groups known as pods. Their brains are far larger than humans, the size of which, is correlative with their acoustic sensory system. The vocal range of the orca falls predominantly within human hearing limits. Despite its fearsome reputation, it is a creature friendly and curious towards human beings. Scientists have already discerned more than a hundred distinct orca sounds, which points to the probability of an orca language. Of all the creatures of planet Earth, the orca provides the most logical choice for any experiment in advanced interspecies communication. This is an example of the kind of sound they make amongst themselves while cruising for food.

2. The Lesson. I have been playing music with orcas for five summers. Sometimes I call them, sometimes they call me. During the period when this piece was recorded we played together every night for six nights in a row, promptly at 10:30 PM. This piece has been the center of a controversy ever since it was first presented at a session of the International Whaling Commission. Are the whales teaching me a phrase from their own language? Are they breaking the phrase into increments, enunciating the individual parts? Are they patiently correcting me when I make a mistake in pronunciation? I am playing an electric guitar through an underwater speaker; recording them through hydrophones (underwater microphones). What you are listening to was recorded entirely underwater. The hiss is the sound of tidal currents swishing over seaweed.

3. The Lesson Replayed. A repeat of the crucial parts of the lesson. After listening to this piece, the director of the Japanese Whaling Association privately commented to me that "unshakable proof of communication is the only thing that will make us quit whaling". At this point in the long term Orca Project of my organization, each listener must decide for himself if this dialogue is "unshakable".

4. Orcas and Waterphone. The waterphone is an acoustic metal globe which floats, and is played by stroking its various brass prongs with a violin bow. I am playing the waterphone in the water; and there are ten or more orcas within fifty feet of me. On one strange occasion, I was charged by two juveniles (sixteen feet) who dove just three feet before hitting me at twenty miles an hour. It was a joke which was not shared. Playing music with orcas in the water is not as intellectually stimulating as trading melodic licks; but it offers a physical rush, a strong TV story and glimmerings of telepathy unavailable to the landlocked musician.

5. Heavy metal. Some of the guitar/orca dialogues last for three or more hours, late into the night. Here is one of the more intense dialogues- a segment of a one hour piece. This piece was recorded a year after The Lesson. The difference between the energy level of this exchange and the energy level of the orcas own vocalizations from the first piece is very noticeable. The low murmur is a steamship passing in the night.

6. Orca Reggae. In 1980 I began to play a simple chord progression into the water every so often, over a period of three days. At first they simply answered the music, without any recognition of the melodic structure. Then, on the third day, the pod began to answer the simple harmonic progression with some relatively sophisticated counterpoint. With more time, I have no doubt that the orcas could learn the rudiments of jazz improvisation. This piece is the other side of the coin from The Lesson.

7. MUSIC TO EAT THANKSGIVING DINNER BY. Three flute players creating a canon in the midst of three hundred turkeys. This piece was originally sponsored by KPFA radio in Berkeley, California as background muzack for Thanksgiving. The original version lasts for two hours. Portions of this recorded piece have been doubled out-of-sync, to give it added density.

Thanks and Acknowledgements:

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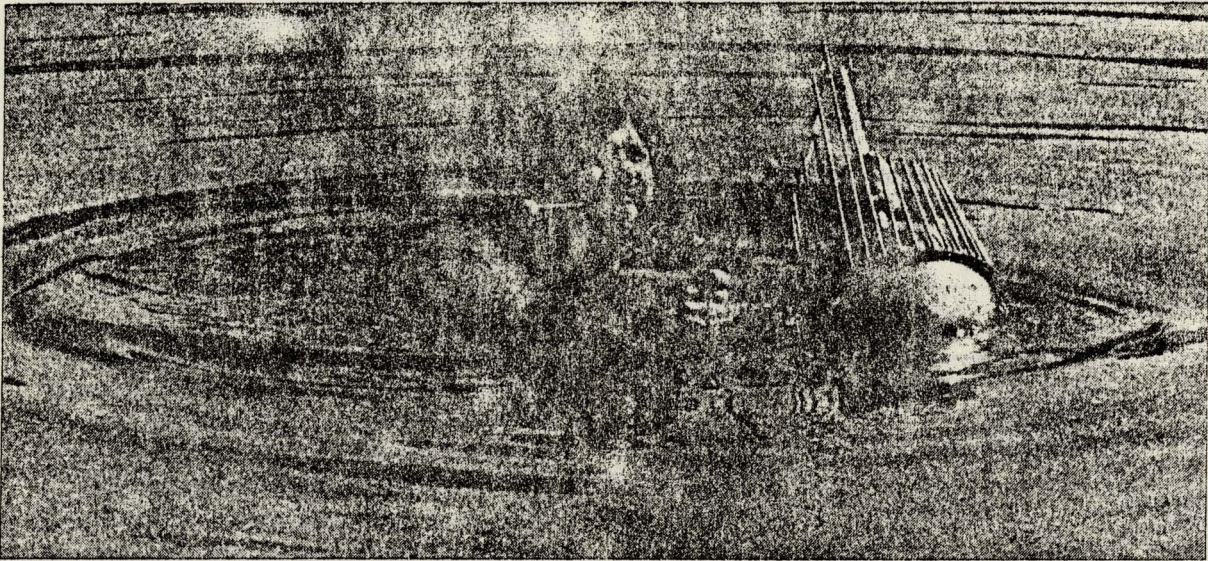
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INTERSPECIES MUSIC

by JIM NOLLMAN



Lewis Watts

Jim Nollman and his waterphone: a metal globe with "tuning forks" attached to perimeter. Chop sticks with "super" balls are used to send waterphone vibrations through the water.

Within the barren interior of the Kamchatka peninsula of northeastern Siberia, live a people who are closely related to the north American Eskimoes. The day to day diet of these Kamchatka people is generally quite austere, and starvation is evidently an accepted fact of life. Yet two times a year, when the huge flocks of migrating ducks pass through their territory, begins a time of great celebration; a time of feasting and merriment. Through the centuries, a body of music has developed for this ceremonial period; a music derived in both name and melody from the call of these aangitsch ducks.

The aangitsch songs serve two important purposes. Firstly, they are essential to the hunt itself. If the songs are sung properly, and in a spirit of true

communion, the ducks lose their fear, and come close enough so that a goodly number can be killed to insure a proper feast. The performance of these songs is highly ritualized, and an exacting art; one which requires a refined vocal technique as well as a command of what is known as "the duck energy." Secondly, after the hunt is complete, these same songs are sung throughout the period of celebration, but now by the entire tribe. This is a joyous yet serious business; for if the spirits of the slain ducks are not thoroughly appeased and entertained in their own language, the flocks might not appear again on their next migration. It seems important to add, that like most traditional peoples, the Kamchatka never kill more ducks than they need in order to survive. According to the Kamchatka, the people and the ducks are one and the same.



Besides hunters, birders, pets and scientific techno-communicators, there are the "now primitives" of America. They are the gentlest and simplest of people similar to the Iturbi pygmies in intent. They focus more on harmony of breath, sound and communion than knowledge, "facts" and influence. Jim Nollman, maker of slit drums and musician of many instruments, is trying to re-create "anima-persons" by returning to SOUND as SEED of all communication. —PW

Here I sit within the enormous stillness of Death Valley; this is my fourth night trying to make a music in harmony with a colony of kangaroo rats. If and when a rat feels ready, he emerges from his hole, and thumps loudly on the ground over his burrow. The kangaroo rat is equipped with enormous hind legs, and the thumping can get quite loud and animated. And when one thumps, another inevitably answers, with its own rhythms from several hundred yards away. Yet when I myself try to initiate some

thumping sounds, I never receive an answer. But if a rat does come out, and begins to thump, and if I answer it with a like rhythm, sometimes we are able to carry on a musical conversation for as long as ten minutes. This afternoon I spent over an hour looking for just the right shaped rocks for the occasion; it had been as careful a business as if I were buying a new guitar. The rocks are sometimes struck together, sometimes thumped separately on the ground.

But there has been no thumping, and I have seen no kangaroo rats on this night. I have already sat here for three hours, nearly motionless, and just twenty feet in front of one rat's maze of burrows.

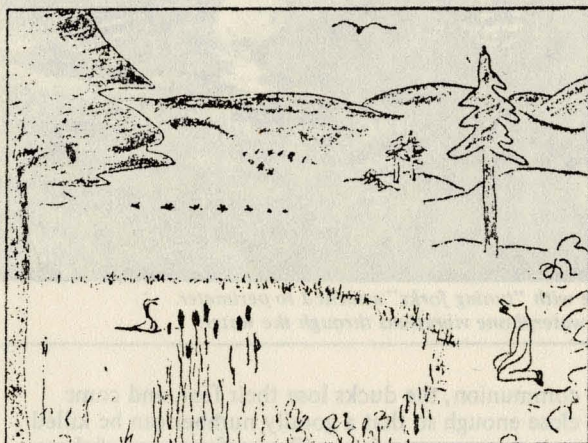
The silence of the desert seems nearly complete, and but for the roar of an occasional jet flying overhead,

located in the desert mountains north of Reno. Here, the wolves are kept in large chain link fences. Like most captive beings they spend much of their time pacing back and forth.

As I approach the pack from down the hill, they sing out a song, ostensibly to the setting sun. They stop singing as soon as I come into view.

I have brought several musical instruments with me; and so I play this one, now that one, encouraging the group to sing along. But all of this music just seems to make the wolves tense up, and now they pace back and forth even more furiously.

Finally I give up this rude attempt at human-based music making, and instead sit with them as quietly and as anonymously as is possible. And so, for an



“Father,” said Loon Woman, “I know what I have done. I’ve spoiled the world. I’ve spoiled the world and other people are coming. Now I will be Loon and you will be Coyote. We can never be together again. I will live in the lake, and you will live in the brush. But every morning at dawn, and every evening at dusk, I will cry from the lake. Then you will come to the edge of the brush, and you will answer me. That way you know I am living. And I will know you are still living too. Now I must go. You also, you go.”

— Jaime de Angulo
Old Doctor Loon

all I hear is the sound of my own nerves whining away between my ears. Sitting here for three hours, I work to still this buzz in my head, trying to void my own out-of-control nervous energy. I wonder if this nerve noise can be heard by the rats. I don't doubt it.

Inevitably, many thoughts pass through my mind. Now I am a disciple of the Zen master who must answer the Koan “play the sound of the silent rat.” In another moment I am transformed into a Shoshone youth out on the floor of the desert night performing his passage into manhood. And yet, just at the moment when I am most lost in these fantasies, a wild mule hee-haws from miles away, and so I am shaken back into the moment.



Here live twelve wolves, mostly former pets who had grown from cute little puppies into huge and powerful beasts; in fact much too powerful for their human owners to cope with. The choice came down to shooting them or . . . and so an organization was born: the North American Predatory Animal Center,

hour into darkness I sit alone with a pack of twelve wolves, meditating on this large and ominous chain fence which separates us.

But soon they begin to sing again, a rich piece with a complex contrapuntal structure. I am able to make out most of the individual voices within the whole.

I enter the song with my own voice, try to improvise around the piece of music as I hear it; but as soon as I strike a dissonant note, the whole pack suddenly stops singing. Again they pace back and forth.

Now I stand up and walk over to the largest wolf of the pack: an all white, grandfatherly looking creature named Arctic. I notice that Arctic is constantly lifting his huge head high into the air as if to sing, yet he has yet to join the general song. I sit down inches from the chain fence, and Arctic sits down facing me.

Soon the pack begins to sing again. And soon Arctic joins in. Soon I hear another pack from down the hill singing. And from all over the distant hills, the sounds of barking coyotes adds to the chorus of voices.

Very slowly I lift my head high and quietly chant with Arctic, trying my level best to follow his voice

with a precise harmony. Finally, it seems to me that my harmony is truly harmonious for the very air around us begins to shimmer in sound. Arctic seems to notice also, for at that moment he sings out louder than before. I take this action as an encouragement to sing out.

Such an incredible feeling of elation, chanting an ancient song to the descending night, with a large group of wolves and coyotes. Soon they all stop; we all stop. I sit for an hour longer.



I swim straight out into the open ocean; two hundred yards from shore on this becalmed, coral-studded, blue-green sea. I am able to support my weight by cradling a stainless steel and brass hollow sound sphere known as the waterphone. The waterphone is a musical instrument.

Two hundred yards directly in front, twenty or more fins roll out over the ocean surface in close formation. These are spinner dolphins, and all the accounts say that they are both highly intelligent and friendly to humans. But still, this is the first time that I have ventured so far from shore, alone, with so many large sea creatures about. One small part of my media-cluttered mind brings into focus various shark-infested movie set oceans from my childhood.

I begin stroking the main tube of the waterphone. If I catch its surface with just the right amount of finger pressure, the whole sphere vibrates. Cradling the instrument properly, this vibration courses clear through my body, and so into the water. This whole process tickles.

But the dolphins seem totally disinterested in this sound as they continue about their business of travelling into the middle of the bay. I stop playing for a moment and stick my head into the water to hear. I hear nothing but the lingering vibrations of the waterphone.

So I change my approach to a shorter, more repetitious tune by rubbing my palm across the brass prongs which rim the equator of the instrument. The rhythm is clear and simple: five seconds of sound, and five seconds of silence. Once again I stick my head into the water. Now the sound of the sphere is so intense that it actually hurts my ears to listen. They say that sound is five times more intense underwater; the mix of my ringing ears and the muffled quiet tones from above water seem to confirm this fact.

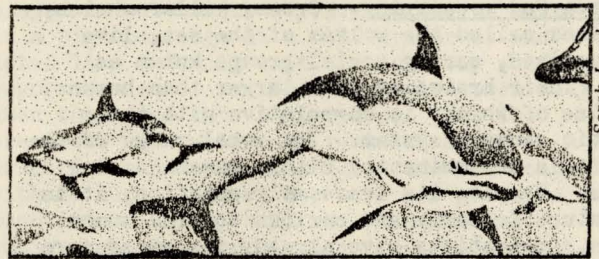
Still, the dolphins seem disinterested, and so I change my tune a third time. By striking the center tube with a mallet while simultaneously immersing various parts of the sphere into the water, a ringing tone is produced which rises and falls dramatically in pitch.

Immediately there is a change. The dolphins turn from their straight path and now swim straight toward me. Just fifty yards away, they form into a tight precisely patterned circle, and turn and turn

about for a minute or more. This movement reminds me of nothing so much as Israeli folk dancing.

Eventually they break from the circle, one at a time; and move in very close; thirty-forty-fifty feet distance. It is difficult to judge accurate distance with my eyes just six inches above the water surface. But their eyes are quite visible as several of their number lift their heads high above the water surface to look at this strange vibrating being who swims in their midst. I am mostly struck by the immense power of their breathing.

All the time I continue to play these long sliding notes on the waterphone. Once more I stick my head into the water. The sphere sounds clear and sweet: now like an oriental gong, now like a church organ. I listen for twenty seconds, come up for a deep breath of air, stick my head full below the surface again, up and down, over and over. This process of playing and listening seems so clumsy. I feel inadequately built to the task of communing with these creatures of the sea. I still can hear nothing but the sound of the



waterphone. Perhaps my ears are just not built to hear the high pitched sounds that the dolphins may be making.

But if I feel inadequate, the dolphins don't seem to notice it at all. All of us are quite together now, human and dolphins swimming on the deep blue sea. One swims directly underneath my feet.

And now, so suddenly as to make my blood rush one of the dolphins jumps six feet clear of the water, and just a few feet away. In a moment they are all jumping clear of the water, spinning and somersaulting about. All I can manage to do is watch them with a big foolish grin on my face. And from the shore, so very far away, an audience of humans has gathered to watch this interspecies theatre. And now, they too are all jumping about, laughing and clapping: carrying on like a group of happy children. This joy is truly infectious. What more could any musician ask for from a performance.

The dolphins continue to frolic about for ten minutes or so. Soon they move off, and once again form into their precise tightly knit circle, turning and turning about.

Soon they swim off and are gone.

This human being feels shivering cold in twenty-five feet of water; much too far from shore for comfort. Kicking with his rubber frogman's feet, he slowly paddles to shore, where other humans stand, ready to talk to him. ■