

Statement regarding "Arna" the elephant

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1. I have viewed the video of Arna filmed on 30 December 2001. My comments below are based on the time code that appeared on the video.
2. Arna is an Asian elephant, *Elephas maximus*. My comments are based on over 25 years of study of the behavior and communication of free-ranging African elephants, *Loxodonta africana*. While, African and Asian elephants are two different species their behavior and communication is remarkably similar. My comments on the type of rumbles that are heard on the video tape are based on sound quality as I would categorize the same sounds in African elephants.
3. Arna showed considerable stereotypic rocking back and forth behavior that is typical of captive elephants but is not seen in free-ranging elephants. This behavior is most common in individuals who are bored or agitated. Arna exhibited this behavior on and off throughout the video sequence but the vigour with which she performed it increased after the departure of the three elephants.
4. At 13:57:02 - 21 Arna and another elephant greet trunk to trunk, separated by what appears to be an electric barrier. At 13:57:19 I can hear a "greeting rumble" associated with rapid ear-flapping by at least one elephant. The two elephants greet trunk to trunk again at 14:12:02 - 21 and again at 14:13:27 - 45.
5. At 14:17:57 the last of the three elephants is in the truck.
6. At 14:18:21, after the three elephants have been removed and immediately after the electric barriers have been removed, Arna goes over to smell the ground where the other elephants have urinated and defecated. Elephants are able to gather information regarding both reproductive state and individual identity through chemicals present in urine and dung. Arna examines these smells until 14:19:22.
7. At 14:19:17 and again at 14:19:40 I hear some sounds that could possibly be rumbles made by the three elephants in the truck. These are barely audible on the tape.
8. At 14:20:32 Arna begins her agitated rhythmical rocking; other three elephants are still nearby but in the truck.
9. At 14:23:06 the truck drives off with the other three elephants. I do not know how far they drive or where they go.
10. More agitated rocking at 14:30:15
11. At 14:30:40 she is given some treats.
12. At 14:46:27 she displays more agitated rocking again.

13. At 14:46:52 Arna rumbles softly.
14. At 14:47:42 she gives what sounds to me like a very distraught "lost" rumble. Among free-living African elephants this call is given most often by calves and juveniles when they become separated from their family - the rumble has a pulsated quality. It is typically repeated many times, usually given softly at first at regular intervals and then as the calf or juvenile becomes more distraught the rumble becomes louder and more rolling almost reaching a roar in quality and is associated with loud and agitated trumpeting. This call is rarely heard by adults because it is unusual for an adult to feel distraught and frightened at being separated. An adult typically maintains contact with her family by using a "contact call". I have, however, heard adults give the "lost" rumble.
15. This is followed at 14:47:31 trumpeting. There follow numerous rumbles and trumpets and other behaviours. These I have included in the form of a table, attached.
16. I could not see where or how many viewers there were. They may have exacerbated the situation. Arna is, however, a circus elephant and I would guess that she is habituated to noisy crowds. Considering the type of calls she gave and the very obvious listening behaviour that she exhibited it is very clear that her behaviour was in response to the removal of the other elephants.
17. Elephants are extremely social animals and it is unethical to keep an elephant, particularly a female elephant in solitary confinement.
18. In the Standards for Exhibiting Circus Animals in New South Wales under the Exhibited Animals Protection Act under section 1.8.D. Elephants, para 3 reads, "Elephants are intelligent, inquisitive and social creatures, and, therefore circuses should not attempt to maintain single elephants." If Arna is being kept as a solitary elephant this situation should be rectified.

Table 1. Arna's Behaviour following removal of other elephants

Time	Rumble	Trumpet	Listen	Rapid movement	Rocking
14:46:27					X
14:46:52	Soft rumble				
14:47:21	"Lost" rumble			X	
14:47:30		Trumpet		X	
14:47:35	"Lost" rumble	Trumpet			
14:47:43	"Contact" Rumble	Trumpet x2			
14:47:50	"Lost" Rumble	Trumpet			
14:48:00- 14:48:16			Listens for other elephants		
14:48:17	"Lost" rumble		Trumpet x 2		
14:48:22				X	
14:48:29	"Lost" rumble				
14:48:34		Agitated trumpet			
14:48:43			Listens for other elephants		
14:49:20- 14:49:26			Listens for other elephants		
14:49:41	"Contact" rumble				
14:49:48		Agitated Trumpet			
14:49:56				X	
14:50:09				X	
14:50:20- 14:50:38			Listens for other elephants		
14:50:43					X
14:51:08	"Lost" rumble			X	
14:51:09		Trumpet			
14:51:10	"Lost" rumble			X	
14:51:20		Trumpet			
14:51:25- 14:51:42			Listens for other elephants		
14:51:43	"Lost" rumble			X	
14:51:52		Trumpet		X	
14:51:53					
14:53:01	Rumble				
14:53:25	"Lost" Rumble				
14:53:12					X
14:55:15					X