Making the Most out of Shared Space:

speaker notes in italics

Mixing Birds and Mammals

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### In the past in zoological settings, there have been basically two ways to exhibit birds.



#### The postage stamp collection

One bird or one pair per holding. Not mixed with anything. "Static" displays.





Birds as window dressing.

Thrown in as an afterthought-used to "add color" to an exhibit. Usually no consideration for the long-term well being of the birds. No attempts to breed or provide social settings.

### Look at ways to make the most of your shared spaces!

#### Some considerations:

- SAFETY (for all species- including humans!)
- Make sure each species needs are met:
  - Food (feed stations, station feeding, scatter feeding)
  - Water (drinking, bathing)
  - Shelter (holding space, wind breaks, sun shade)
- Space for socialization/breeding opportunities



# Examples of Audubon Zoo mixed exhibits Giraffe

Kori bustards
West African crowned
cranes
Marabou storks
Helmeted guineafowl

Although koris had bred in the exhibit in the past, it was not a very good fit. There was limited back holding and the birds had to be caught up regularly for wing clipping which was an additional hazard. Guineafowl freeranging throughout all of the African areas.

## Eland and Thompson's gazelle

Eastern white pelicans
Pink-backed pelicans
White-breasted cormorants
Old World comb ducks
South African shelducks
Abyssinian ground hornbills
Helmeted guineafowl





Very large grass lot. The lagoon was on both sides so pelicans and waterfowl could access this yard as well as zebra/rhino on the other side. Hornbills were added later to live permanently on the eland side. This exhibit has gone extinct and is now the site of the new lion exhibit.

#### Zebra/Rhino/Wildebeest

Eastern white pelicans
Pink-backed pelicans
White-breasted cormorants
Old World comb ducks
South African shelducks
Abyssinian ground hornbills
Helmeted guineafowl
Marabou stork

Pelicans and waterfowl have always had access to this exhibit. Ground hornbills were moved over when eland exhibit was made extinct. Marabou storks were added when they did not do well in the giraffe exhibit.





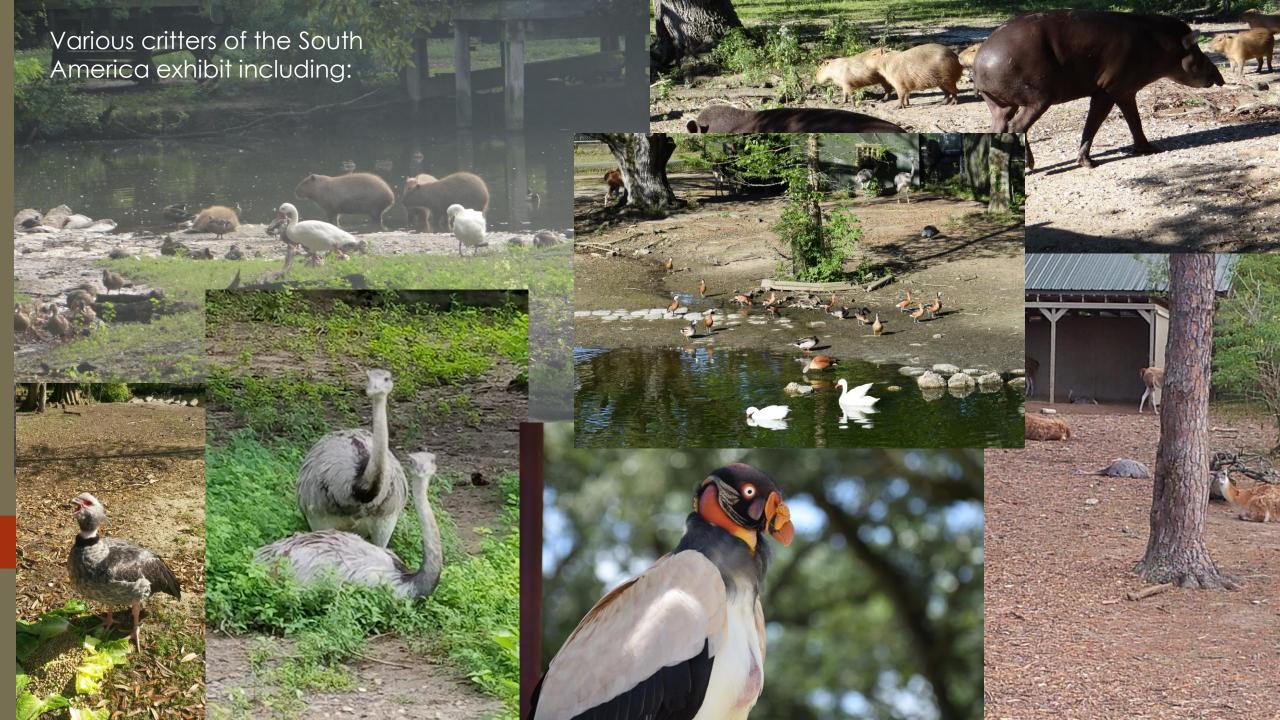
# Guanaco Lowland Tapir (Now Baird's Tapir) Capybara Patagonian Cavy Mara

Southern Screamer
Coscoroba Swan
Black-necked Swan
Rhea
King Vulture

White-faced Whistling Duck
Fulvous Whistling Duck
Rosybill
Chiloe Wigeon

Miscellaneous:
Domestic Goose
Cape Shelduck
Helmeted Guineafowl

South America exhibit is a large exhibit with public pathway between two large yards. A large lagoon in between the yards traditionally made it so tapirs, capybara, and waterfowl could cross regularly between both sides of the exhibit.



#### South America Renovations

- Separation of yards
- Additional fencing to create more spaces
- ■In house additions for both vultures and new species, Patagonian cavies
- Ability to move and give various species access

Renovations: A portion of the larger "north yard" was devoted to new nocturnal house. Remaining north yard was dedicated to king vultures and new species, Patagonian cavies. In house additions included thematic mining site structure that was vulture perching in disguise. Large concrete culvert tubes were also placed in mounds to give cavies disguised shelters. Fencing was placed so north yard can be shared or cut off as needed.















#### **Asian Domain**

Barasingha deer and bar-headed geese

Asian Domain renovation several years ago. The greater/rhino hornbill exhibit was lost. The only birds that currently reside in this area are the bar-headed geese that live with the new barasingha deer. They get along fairly well for the most part. The breeding male goose and his mate were eventually removed because he was aggressive and could possibly be hurt by the deer. Other goose offspring were fine with the deer and remain in the exhibit.







#### Holding areas (the art of negotiation)

Be prepared to make do if necessary.

Shelter made in house on left. Stalls for ground hornbills and pen for helmeted guineafowl. King vultures on the right utilizing a tapir holding barn in the winter when it is cold. Marabou stork emergency holding for hurricane weather.



#### Feeding stations

The challenge: keeping the \$#%\$^&# mammals out of the bird food!

Challenges for feeding in South America. Everyone likes someone else's food. Capybaras and tapir are moved to separate pens to be fed, while guanacos have regular feed pans, and rhea have an exclusion feeder (pictured).

#### Safety issues

Using measures that are already in place.

Tree guard in eland yard worked well as an escape area when ground hornbills were introduced to this yard. The large metal fence in giraffe keeps them away from the public, and also gives the cranes a safe area from the giraffe as well.









#### Adding new safety measures.

Something a little more natural, maybe?

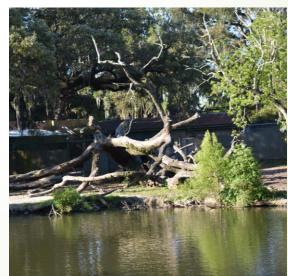
Ground hornbill needed additional safe space from eland. Natural logs were used to look like a tree had fallen. It gave them a larger safe area.

## Making the most of opportunities!











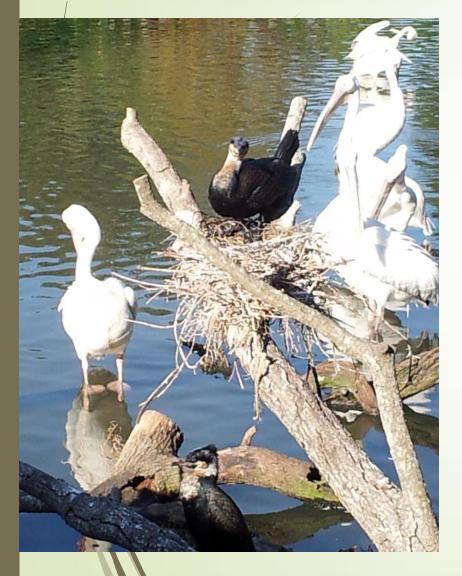
Live oak tree in the zebra yard died. It was felled and trimmed to be used as perching for all the birds in the area. Provides a safe run around space for when zebra or wildebeest might get a little pushy. Marabou storks, Aby ground hornbills, and pelicans all use the perching.

Always be ready to:

- REVISE
- **■** REFIT
- REINVENT

Do whatever it takes. Always look for opportunities to make life better for your birds!

## Problems and things that just don't work well







Difficulties for some birds nestingcormorants get harassed by pelicans sometimes. Difficulties with sharing stuffbedding put out for rheas to keep warm in cold weather is eaten by guanacos. Marabou storks in giraffe yard were a bad fit. The area was too open and flat. The storks had nowhere to perch and were generally unhappy in the exhibit.



## Other shenanigans:



Pelicans.... Stealing hay from zebras.... Surrounding rhinos... pulling the tail on the rhino... harassing tortoises. One pelican did get injured at one point. It is believed that he was stabbed in the chest by a wildebeest. Fortunately the wound wasn't bad and he made a full recovery.

(Pelicans!)

#### Roll with the ups and downs

- Africa live oak tree died, tree is felled to provide additional perching and safety run -arounds in exhibit.
- South America exhibit being renovated use opportunity to build in house features to blend in with new theming and eliminate stagnant flat ground area. Provide heights for birds and new territory for additional species.
- Mammal keepers having better relationships with birds - capitalize on this by using mammal keepers to help shift for husbandry purposes.

All part of working with each other. One downfall – sometimes communications with other departments are difficult. Someone needs to work in zebra yard, they don't always consider what problems it might cause for the birds that reside in the yard as well. Sometimes communications still break down because we aren't considered in the big picture.

## Successes are possible!







Crowned cranes breed well in the giraffe exhibit. The mix at South America exhibit generally works well. We regularly breed king vultures, and we hope to soon be breeding tapir again. The Africa exhibit is very dynamic now with the mix of species.

#### Any questions or comments?



Goofy deer.

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