Heedless (Clockwise from left) Illegal sand mining at Chambal Bridge, Dholpur; a gharial on the riverbank; Indian skimmers with a mugger crocodile. • SAHIL ZUTSHI & TARUN NAIR

Sahil Zutshi

FIELD NOTES

Illegal sand mining in the protected riverine area continues unabated, endangering several threatened species

Digging up the Chambal

Lately, instead of being treated to sights of wildlife, visitors are witness to convoys of tractor-trolleys, diggers and excavators destroying the sandbanks along the Chambal

Along the periphery of Keoladeo National Park in Rajasthan, Lal Singh counts sand-laden tractor-trolleys returning from the Chambal. "I watch this every day. What effect has the Supreme Court's ban on sand mining had?" asks Singh, a former wildlife guide.

The 200-strong convoy makes its way onto the Jaipur-Agra highway, from where a criss-crossing network of roads ensures the illegally mined sand reaches all corners of the region, the NCR, and further. "They mine day and night. Everybody is hand in glove with each other," Singh says, pointing towards the Chambal Bridge near Dholpur, which forms the border between Rajasthan and Madhya Pradesh and is the gateway to the Chambal River Safari.

Long believed to be cursed and born from the blood of a thousand animals according to mythological retellings, Chambal, once the haven of fearsome dacoits, is today a meek witness to the massive ecocide happening right under the noses of the police and forest authorities.

Breakneck speed

The National Chambal Sanctuary (NCS), a protected riverine area, spans Rajasthan, Madhya Pradesh and Uttar Pradesh. Touted as the cleanest river of India, "away from all industrial pollution", by the Madhya Pradesh Tourism Department, the Chambal flows though the sanctuary, which is home to rare wildlife. The river harbours some of the most pristine sandbanks, which are the basking and egg-laying habitats for the critically endangered gharial, for the endangered Indian skimmer, the critically endangered red-crowned roofed turtle, and a host of other threatened and endangered species. India's national aquatic animal, the endangered Ganges river dolphin, is also spotted here.

The area welcomes tourists and photographers from all corners of the country. Lately, however, instead of being treated to sights of wildlife, visitors are witness to convoys of tractor-trolleys, diggers and excavators destroying the sandbanks along the Chambal. Sources have reported illegal mining occurring at breakneck speed in recent months. During visits in January 2022, Indian skimmers, threatened river terns, mugger crocodiles and the red-crowned roofed turtles, of which less than 400 females are thought to remain in the wild, were observed in the immediate vicinity (within a 100-metre radius) of multiple sandbanks being mined. According to reports, rampant sand mining within NCS is forcing gharials to migrate to Kuno and Parbati rivers, tributaries of the Chambal, in search of safer egg-laying habitats.

Local menace

Coupled with habitat loss, the area is facing plastic and waste pollution as a result of the mining. "The disturbance caused by excavators and the trolleys is getting worse," said a forest department employee wishing to remain anonymous. When pressed further, he said that the scale of unlawful mining had seen an increase over the past year. All this despite the presence of forest department personnel of Rajasthan and Madhya Pradesh at Chambal Bridge, and police checkpoints on both sides of the State border.

Due to the lack of effective monitoring, either owing to resource constraints or safety concerns of investigators, the true scale of illegal sand mining remains unknown. However, satellite imagery clearly shows the gradual disappearance of depositional features that form over long time periods. Conservative estimates from an on-ground investigation in January 2022 suggested that some 40,000 cubic feet of river sand was being extracted from the Chambal Bridge site alone on a typical morning. If unlawful mining is brazenly progressing here, less accessible sites in the interior, away from the public gaze, are likely to be witnessing more devastation.

Conservation biologist Tarun Nair, who has reported on the ecological damage in the region, believes that ending illegal mining is a matter of administrative will. "We have repeatedly seen, most recently during COVID-19 lockdowns, that the government machinery is capable of enforcing restrictions. The reasons for not doing so here lie in the criminal-political economies of the sand mafia. That said, the 'mafia' is not an external evil but a homegrown, local menace," he says.

Attempts to eliminate illegal sand mining continue to prove futile while it has often been suggested that operations are organised by politically well-connected individuals. Over the past two decades, several instances of activists, journalists, and officers being harassed, assaulted or even killed for taking an anti-mining stand have been documented. Widespread local support and participation in illegal mining ensure that activists face an uphill task and considerable personal risk.

Information blackholes

"This is also why there is little political will to stop illegal mining or why it is seldom part of the 'promise package' to legalise sand mining and de-notify protected areas during election campaigns," says Nair. "In this case, the 'innocent local vs. evil outsider' dichotomy is false and does not reflect ground realities."

The Rajasthan government's recent decision to lease 60 sites across the State for 'legalised' sand mining is expected to come as some relief to protected areas. However, there is an information blackhole on details of these sites, which includes a lack of transparency on ecological assessments undertaken and made available in the public domain.

Such blanket clearances for projects set dangerous precedents, making statutory requirements mere formalities. Whether illegal sand mining will reduce remains to be seen, but the move serves as an invitation to imprudently destroy ecosystems without scrutiny. Further, since there are alternatives – and better ones at that – such as manufactured sand (M-sand), which has found significant uptake in some parts of the country, it makes legalised sand mining all the more questionable.

The sand and construction mafia have already destroyed the Aravallis in Haryana and Rajasthan. Now, they are causing havoc to riverine ecosystems. The National Green Tribunal alone is our last hope to save the fragile habitat of the Chambal," says G.V. Reddy, former Principal Chief Conservator of Forests, Rajasthan.

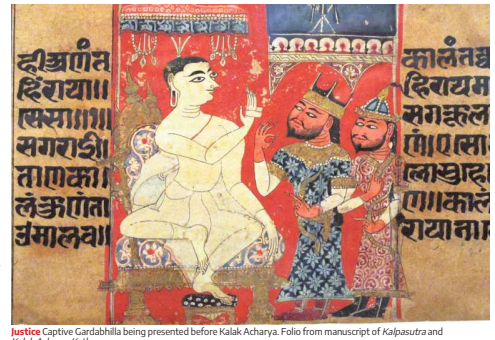
While the legendary bandits of the Chambal have long turned over a new leaf, whether the sand mafia, spurred on by society's monstrous appetite for construction and real estate, will abandon their exploitative occupation and leave the Chambal to its wildlife is anybody's guess.

The writer is a conservationist and undertakes work at Mount Abu Wildlife Sanctuary.

FROM CULT TO CULTURE

The Jain monk and his Saka saviours

Today, politicians only remember the Mughal kings as foreigners. They remain strategically ignorant of other foreigners, like the Scythians who helped a Jain muni overpower a cruel Indian king



Justice Captive Gardabhilla being presented before Kalak Acharya. Folio from manuscript of *Kalpasutra* and *Kalak Acharya Katha*. • WIKICOMMONS

About 2,000 years ago, incidents took place involving the Jain community that inspired an epic ballad that was put down in writing a thousand years later in Prakrit and local languages. This was the *Kalak Acharya Katha* that became the standard appendix of the main Jain text, the *Kalpasutra*, that described Jain cosmogony.

Then, five centuries ago, illustrated Jain manuscripts appeared telling this story. The manuscripts were dedicated by Jain merchants and bankers to their patrons, the Muslim Sultans of the newly emerging kingdoms of Ahmedabad, Jaunpur and Malwa. These peripheral kingdoms arose following the invasion by Timur 600 years ago, which had weakened the Delhi Sultanate. With limited access to Central Asian talent, these Sultans were forced to employ local talent in their courts, especially Jain bankers with a sound knowledge of accounting and finance.

Kalak Acharya Katha tells the story of a great Jain muni of the Shwetambar school called Kalak. His sister and he joined the Jain monastic order at an early age. He was extremely knowledgeable and she was extremely beautiful. Even though she was a nun, she was abducted by the king of Ujjaini.

Kalak went to the king and begged him to release her, but the king refused. Frustrated because no local king would help him, Kalak then travelled across the Sindhu river to its western banks, and took the help of Saka (Scythian) warriors. The Scythians agreed to help him because he had displayed magical powers: the ability to turn their bricks into gold. They attacked Ujjaini, but the king of Ujjaini had a trick up his sleeve. He had a magical donkey. When it brayed, the terrible sound could kill a hundred soldiers at a time. Divining the presence of this lethal donkey, the Jain muni instructed the Scythian warriors to shoot arrows straight into the mouth of the braying beast. That way they were able to stop the donkey from braying without killing it. Thus, with the help of the Scythians, Kalak was able to defeat the king of Ujjaini and rescue his sister.

This story is significant, as the Sakas are generally treated as foreigners in Hindu texts, along with Yavanas (Greeks), Pahalavas (Parthians) and Kushanas (Central Asian Chinese), although many of them patronised Buddhism, and a few even Jainism and Hinduism. The story is remarkably similar to the *Ramayana*, where Ram takes the help of the monkeys to liberate his wife from the king of Lanka. But what is interesting is that while the king of Lanka is an outsider, here the enemy is an Indian king, probably well-versed in *tantra*, and the antagonist is a Jain Muni whose support comes from a foreign land, the Shveta-dvipa or white continent in the west, a term used in many scriptures for Central Asia, the home of light-skinned Turks.

There are other stories of Kalak Acharya besides the Scythian attack. The muni's nephews, Balmitra and Bhanumitra from Bharuch, eventually replace the Ujjaini king and venerate Kalak. But the Brahmins of Bharuch resent the popularity of the Jain monk, who is gently encouraged to leave the city. Kalak finds refuge in Pratishthana, whose king Shalivahan gives him refuge, and accommodates Jain festivals alongside Hindu festivals.

The rivalry between Vikramaditya of Ujjaini and Shalivahana of Pratishthana is a key theme in folklore. There are stories that link the birth of Vikramaditya to a celestial donkey. Is that an allusion to the magical donkey of the evil Ujjaini king? It is difficult to derive facts from the world of folklore. In fact, dating the two legendary kings has proven next to impossible. Some link Vikramaditya and Kalak with pre-Gupta invasions of Sakas and Kushans, while others date them with post-Gupta invasions of Hunas. The Sanskrit manuscripts that tell their story are dated to the 8th century, a little before the *Kalak Acharya Katha* was put down in writing, probably in Gujarat. Any speculation must be done with caution.

Golden era

The 14th and 15th centuries were the golden era of Jain manuscripts. Following Islamic invasions, the Jain community felt it was prudent not to build structures that could be broken by ambitious iconoclastic Turks. They invested instead in manuscripts that display fabulous calligraphy and are full of paintings using vibrant colours. This was Indian art before the influence of Persian painting popularised by the Mughals. They were kept safely in libraries attached to Jain temples.

The story of *Kalak Acharya Katha* was added as an appendix to the *Kalpasutra*, which tells the story of the three types of social beings of the Jain universe: the heroic Vasudeva, the regal Chakravarthy, and the wise Tirthankaras. Illustrating *Kalpasutra*, which describes the cosmogony of the Jain world, makes complete sense. But adding the story of the resilient, upright and powerful monk Kalak as an appendix does not. Why this of all the other Jain stories? Was it to make their patrons, the Sultans, feel they could be seen as saviours, and not necessarily as invaders, if they collaborated with their subjects rather than simply exploiting them? This is, of course, a controversial argument but needs to be considered. Indian history obscures the contribution of Jain traders and merchants.

Math games

The Jains were the oldest community in India to build commemorative temples with icons of their sages and gods. The oldest image of Saraswati has been traced to a 2000-year-old Jain art collection found in Mathura. As traders, the Jains introduced many concepts in the field of mathematics and accounting. The *hundi* system of remittance was probably their invention. The game of snakes and ladders was invented to explain loss and profit, debt and equity. Jain monks, like Buddhist monks, were rivals of Brahmins and many Jain stories speak of this rivalry. For example, Jain epics speak of how the Jain sage Nemi was far superior to the Hindu god Krishna, his cousin. Jains have their own *Ramayana* and *Mahabharata*, where key characters adopt the jain way of life.

While scholars try to seek the historicity of Kalak, it makes more sense to see the mythology of this story. The world of imagination and feelings they capture explains the relationship of the jain community with foreign invading kings and local rival communities. Let us not overlook the fact that the name Kalak (or Kalk) is very similar to Kalki. Kalki is visualised as riding a horse and carrying a sword, much like what Yavana, Saka, Pahalava, Kushan and Huna, and later Turk, Afghan and Mughal warriors would have looked like. Today, politicians only remember the Mughal kings as foreigners. They remain strategically ignorant of other foreigners, like the Scythians who helped a Jain muni overpower a cruel Indian king.

Devdutt Pattanaik is author of 50 books on mythology, art and culture.

GREEN HUMOUR BY ROHAN CHAKRAVARTY

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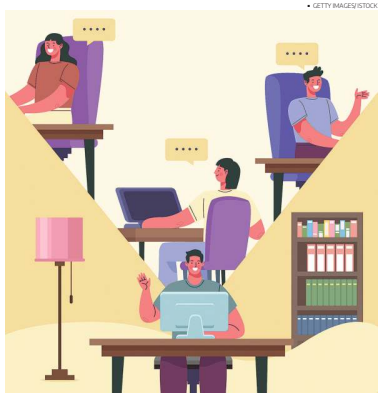


• GETTY IMAGES/ISTOCK

ALLEGEDLY

I know what you (didn't) read last summer

Somehow, only when it comes to video calls, everyone and his plumber is a bibliophile

If as many people read books as there are people who have bookshelves as their background for Zoom calls, the average writer's living standards would be far better, and her bank balance, much healthier. Somehow, only when it comes to video calls, everyone and his plumber is a bibliophile.

Don't get me wrong – I don't mean to imply plumbers don't read books. But we live with stereotypes and the stereotype of a plumber is such that you don't expect him to be reading Karl Marx's 'Eighteenth Brooiler of Louis Bonaparte' when he's not fixing taps. But life is always busting stereotypes.

Recently I was on a video call with my plumber. I wanted his approval for a toilet seat cover I had to buy. When I called him from the shop, I found him sitting at a desk. Behind his head was a wall of books with an eclectic range of authors – from Leo Tolstoy and Arthur Schopenhauer to someone a writer friend of mine refers to as 'Shaitan Bhagwan'. In contrast, behind my distinguished-looking head was an eclectic range of toilet seat covers.

I couldn't help but enquire politely: "You seem to have a great collection of books. Have you read them all or is it a virtual background?"

The plumber smiled, and his reply, in my rough translation from Hindi, was a counter-question: "*Sirji*, you seem to have a great collection of toilet seat covers. Is it a virtual background or have you done your work in all of them?"

Displaced by Katta

My point is simple: we are a society that has traditionally judged people on the basis of their caste, class, religion, clothing, etiquette, accent, price (inclusive of road tax) of their means of transportation, their salary, their boss's salary, and of course, whether their children are comfortably settled in a First World country or sitting at home after an aborted mission of affordable education in Ukraine. So, why not stick to our traditions instead of suddenly changing the rules and forcing everyone to organise a shelf of books because they don't want to be judged on their Zoom background?

Thanks to the fraud known as 'online classes', I've had to surrender my book-lined study to Kattabomman. Naturally, his books have displaced mine. But I still go back there for Zoom calls because that's where the Internet is reliable. Many of these calls are with old friends. While most of them have drifted, over time, to different parts of the same doomed planet, they have two things in common: they are all co-founders, and they all sit before a bookcase when facing the camera – especially the ones who haven't read a book since Class 12.

Humble reader

During one such virtual 'party', my own bookshelf became a target. Because this friend and his latest wife – I'll call them DJ and AJ respectively – launched their attack indirectly, I didn't see it coming.

I even know of an 'influencer' who changes the titles on her bookshelf from webinar to webinar depending on the profile of the other participants

"So Sampath," DJ began, "As Asia's finest book critic, suggest a good book."

"Please," I said, being my modest self. "I won't deny I'm Asia's finest book critic. But at heart I'm just a humble reader."

"So what are you humbly reading these days?"

I wanted to quickly check the *London Review of Books* but its website was too slow.

"From what I can make out," AJ said, screwing up her eyes, "Sampath is busy reading, let me see... *Jataka Tales: The Crocodile and the Monkey, Tiggy the Tiger, Sleeping Beauty*, and *Searching for Sitakodon*."

They wouldn't let me explain that those were Katta's books. Or allow me to expound on the hypocrisy of people who claim to 'read' only audiobooks but shamelessly use physical books as wall décor. I even know of an 'influencer' who changes the titles on her bookshelf from webinar to webinar depending on the profile of the other participants.

Meanwhile, my Zooming ecosystem took another blow last week. Katta, having finally discovered the joys of double-sided tape, went berserk, sticking strips of them all over the study wall. I noticed them just before an important Zoom call and decided, in my infinite wisdom, to do a quick clean-up.

As I peeled off a strip of tape, to my horror, a big chunk of plaster came off the wall, leaving an ugly gash the shape and size of Mongolia. There was barely any time before the meeting was to start, so I rushed to the living room, where my father likes to settle down in the easy chair with a book. There were several titles there. I scooped them up, carried them to the study, and arranged them on a bench by the wall so that they completely covered the plaster-less patch.

When the Zoom call began, predictably, the first comment was on my makeshift book collection.

"So, Mr. Sampath, never knew of your deep interest in spiritual matters."

Spiritual matters? I turned around to check and there it was – the most prominent title in the pile was *Selected Discourses of Shri Ramana Maharshi*.

G. Sampath, author of this satire, is Social Affairs Editor, *The Hindu*.

East-West vulnerable, West deals

NORTH
♠ 8 5 3
♡ A K Q 9 2
♢ J 7
♣ A 5 4

WEST
♠ Void
♡ 10 6 4
♢ K Q 10 8 6 5 4
♣ 9 7 6

EAST
♠ J 9 7 6 2
♡ 7 5 3
♢ 2
♣ K 10 8 2

SOUTH
♠ A K Q 10 4
♡ J 8
♢ A 9 3
♣ Q J 3

The bidding:

WEST	NORTH	EAST	SOUTH
3♢	3♡	Pass	3♠
Pass	4♠	Pass	4NT
Pass	5♡	Pass	6♠
All pass			

Opening lead: King of ♢

GOREN BRIDGE

Solving the problem

Bob Jones

North-South reached an excellent slam. South won the opening diamond lead with his ace and cashed the ace of spades. West discarded, so the excellent slam had become a problem to solve. South found a line of play that was almost certain to work, provided West had the decency to hold seven diamonds for his vulnerable pre-empt. This was not a certainty in the modern game, but South needed that for his plan to work. It was a reasonable assumption.

Declarer cashed the jack of hearts and led a heart to dummy's ace. It was important to remove all of East's hearts, so South continued with dummy's king of hearts. Had East started with four hearts, South would have cashed the queen to extract it, but the 3-3 heart split meant that South could turn his attention to trumps. He led a spade to his 10 and continued by cashing the king and queen of spades, before leading his last spade to East.

East had only clubs remaining and had to lead one. South's queen took the trick and gave South his twelfth winner. Very nicely played! This was another example of a preempt giving declarer a roadmap to the winning line of play.

QUIZ

Easy like Sunday morning

When they start the game, they don't yell, 'Work ball.' They say, 'Play ball': Willie Stargell

Berty Ashley

World record Geet Sethi made history in 1989 in two separate versions of his sport. What are they? • R. RAJU

1 On March 27, 1871, the first international match of this sport took place in Edinburgh, Scotland defeated England 1-0. As many as 4,000 people watched this historic moment of a close-contact sport for which the rules came into existence only 26 years ago. The sport gets its name from the school in England where the rules were written. What is the name of the school and the sport, which is played by two teams of 15 players each with an oval ball?

2 In 1920 a leading sports magazine wrote a letter to the American governing body of a particular sport. They suggested that a team of 12 professionals be chosen to play in England; until then no American had ever won it. They got Samuel Ryder, a wealthy businessman to sponsor it, and named the tournament after him.

This was the start of a now famous biennial tournament in this sport, which alternates venues between British and the U.S.. Which sport is this to which Ryder donated a gold trophy?

3 In 1989, Geet Sethi became the only person in history to have two independent world records in two separate versions of his sport. He scored a maximum (147) in a game of the first version of the sport and a 1000+ break in a competition in the second version. What are these two sports that laymen routinely mistake for each other?

4 This game, which was created in Brazil in 1965, combines the field rules of two of the country's most popular sports. This game apparently started on the beaches in Rio de Janeiro because playing the first sport was banned, but courts for the second sport were open. In the game, players do not use their hands; they multi-touch kick a ball across a net on the sands. Its name comes from the first words of its parent sports. What is its name?

5 This is a sport in which players use their hands to hit a small rubber ball against a wall . The opponent has to hit the ball before it touches the ground twice. Some version of this sport has been recorded throughout history, with the furthest going back to the Aztecs. Racquetball was created when people started using racquets to play this sport. What is the very simple name of this historic sport?

6 Bandy is a form of seasonal hockey that is played with some rules from soccer: it is played in two halves of 45 minutes each and there are 11 players in each team.

As in hockey, the players use a small ball and bowed sticks. Believed to have originated in Russia, the name of this sport comes from 'bander' which is Middle French for "to strike back and forth". Known as winter football, on what surface is bandy played?

7 This sport, often declared a healthiest sport to play, is thought to have originated in Fleet Street prison, when prisoners used to hit balls off the walls with racquets.

This was then adapted by schoolboys at Harrow School, who used a punctured ball and discovered that this flattened on impact and bounced off, leading to a greater variety of possible shots.

It is believed that the name of this sport comes from the sound of this impact, or what happens to the ball when it hits the wall. What is this sport?

8 This is a fast-paced sport where two teams of 10 players compete with each other on a field. It is played with fuzzy yellow balls and you score by hitting a ball into a goal defended by a goalkeeper who can deflect the it only with a racquet. The name of this sport derives from the names of two sports. The first sport provides the equipment and the second provides the rules. What is this sport's name?

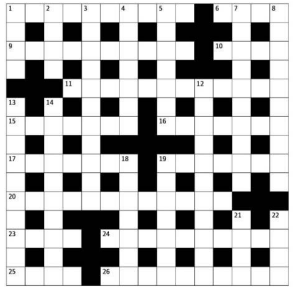
9 In the book, *Orbital Resonance*, by John Barnes, the climax involves a variable-gravity sport where you have multiple teams and multiple mobile goals in microgravity. It is based on an actual team sport where players use a stick with a small net at the end to carry, pass, catch, and shoot the ball into the goal. The name of the game is supposed to have come from the French word for 'the stick'. What is the name of this sport invented by Barnes?

10 This annual football match is contested between the Department of Peace Studies of the University of Bradford and the Department of War Studies of King's College London, both being academic, regional and ideological rivals. The tournament is named after an author of a certain work that was also given as the original trophy. This trophy was retired after 2011 due to its fragile state and was replaced with a new one. Name the tournament; and what is the trophy?.

A molecular biologist from Madurai, our quizmaster enjoys trivia and music, and is working on a rock ballad called 'Coffee is a Drink, Kaapi is an Emotion'. @bertyashley

Answers
1. Soccer and billiards
2. Golf
3. Rugby
4. Football
5. Squash
6. Ice
7. Tennis
8. Tennis Polo
9. Quidditch
10. Tertiary Cup; a framed copy of War and Peace by Leo Tolstoy

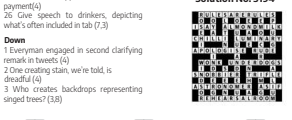
THE SUNDAY CROSSWORD NO. 3195



Across

1 Commonplace kind of crossing? (10)
6 Old tribesman regularly used lion's claw (4)
9 Turnips! I am displaying austerity (10)
10 Hands back in exchange (4)
11 Apportion old rule encountering demonstrator and streakers (6,6)
15 Soil, grit mostly mixed for platforms (3,4)
16 At first, soldiers and meditators; ultimately, rulers – awfully intense! (7)
17 Flipping artificial intelligence to arrest gangster leading Balkan state (7)
19 Food options hotel bar detailed for musician (7)
20 Key vehicle pulling another in part of airport (7,5)
23 Takeaway where French is spoken (4)
24 Still, that's how a very brief debate is? (10)
25 Auditor's opposed to advance payment(4)
26 Give speech to drinkers, depicting what's often included in tab (7,3)

Down

1 Everyman engaged in second clarifying remark in tweets (4)
2 One creating stain, we're told, is dreadful (4)
3 Who creates backdrops representing singed trees? (3,8)
4 They smuggle strips of carpet(7)
5 Adult, tension rising, swears (7)
7 Why we snort dubiously is significant(10)
8 Poisonous creature's hosting 'topless' version: slander! (10)
12 Shun big name, resolving to see people in general (5,6)
13 Peculiar avocations in Canadian province (4,6)
14 Questionable, seeing military demonstration when it's dark (3-2-5)
18 A Lord Lieutenant, elderly, taking time taking everything in (3,4)
19 Less cheerful: French sea swallows specs, swims cut short(7)
21 Perhaps Basil's tucked into feather bed (4)
22 Powerful person in sports arena (4)

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