The Strandloper

BULLETIN OF THE CONCHOLOGICAL SOCIETY OF SOUTHERN AFRICA

No. 175 DECEMBER/JANUARY 1975/76

NOTES ON SOUTH AFRICAN FASCIOLARIIDAE

By. M. LATIGAN

BIOLOGY

Being a neogastropod, the sexes are separate. Stalked egg capsules are laid, some of the ova being abortive (i.e. arrested in development) and commonly unfertilised. These are the 'nurse' eggs on which the developing embryos feed. They hatch as miniatures of the adult and do not have a planktonic veliger state.

A Fasciolariid egg capsule, probably *Fasciolaria heynemanni*, was collected at Bulugha in which there were eleven shells at the protoconch stage, each approximately 9 mm high.

Members of this family are carnivorous. A horny operculum closes the aperture entirely. They are widespread in warm and tropical seas, and live mostly in deep water.

SOUTH AFRICAN SPECIES

Fasciolaria (Pleuroploca) scholvieni Strebel, 1912

F. alfredensis Bartsch, and *F. agulhasensis* Tomlin are synonyms, and not as previously considered, forms of *F. lugubris* Reeve and *F. heynemanni* Dunker. Trawled from 54 m to 252 m from Mossel Bay to Ciskei coast: beach specimens have been found at Jeffreys Bay and Port Alfred. 223 x 85 mm.

Fasciolaria (Pleuroploca) heynemanni Dunker

F. dunkeri Strebel and *F. strebeli* Fulton are synonyms. A very variable species, those living in shallower waters being different from those living in deeper water. Trawled from Plettenberg Bay to Port Alfred. One specimen has been found ex pisce in Natal and beach shells range from False Bay to Mbotyi. 121 mm.

Fasciolaria (Pleuroploca) wattersae Kilburn

A new species known from two specimens from the Tsitsikama coast and Port Alfred which were trawled in 8,4 m – 18 m. Dimensions: 125,5 x 44 mm. It closely resembles *F. rutila* but has conspicuous shoulder nodules.

Fasciolaria (Pleuroploca) rutila Watson 1882

Trawled from 72 – 270 m, living off Cape Point and the Atlantic shelf. Dirty white with straw coloured periostracum. 132 mm.

Fasciolaria (Pleuroploca) lugubris Reeve 1847

Similar to *F. heynemanni*. Found on the west coast of the Cape Peninsula to False Bay with a single old record from Natal. Littoral forms plumper and smaller than those from deeper water. Dredged to 50,4 m depth. 81 – 183 mm.

Fasciolaria (Pleuroploca) trapezium Lin.

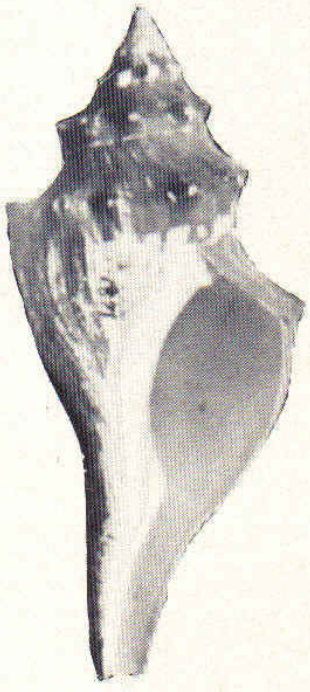
Durban, Mocambique and Indo-Pacific. 162 mm.

Fasciolaria (Pleuroploca) filamentosa Lamarck

172 x 171 mm. Durban and Indo-Pacific.

The President, Vice-President, Group Chairmen and members of the Council wish to take this opportunity to wish all members the Compliments of the Season.

May you all enjoy a Happy and Bright Christmas and a Prosperous New Year



Fasciolaria heynemanni Dunker

(Continued on page 2)

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Fusinus ocelliferus Lamarck

Formerly known as *Fusus verruculatus.* A variable species, and Elston's notes in Circular no. 51 include *F. ocelliferus, F. adamsii* and *F. verruculatus* as being separate species, whereas they appear to be bathymetric or individual varieties. Off Lamberts Bay to Port St. Johns. 150 mm.

Fusinus cratis Kilburn

A newly described species known only from off Durban in 414 m. Length: 120 mm. Erroneously known locally as *Fusus torulosus* Lam., a quite different species.

Fusinus bonaespei (Barnard)

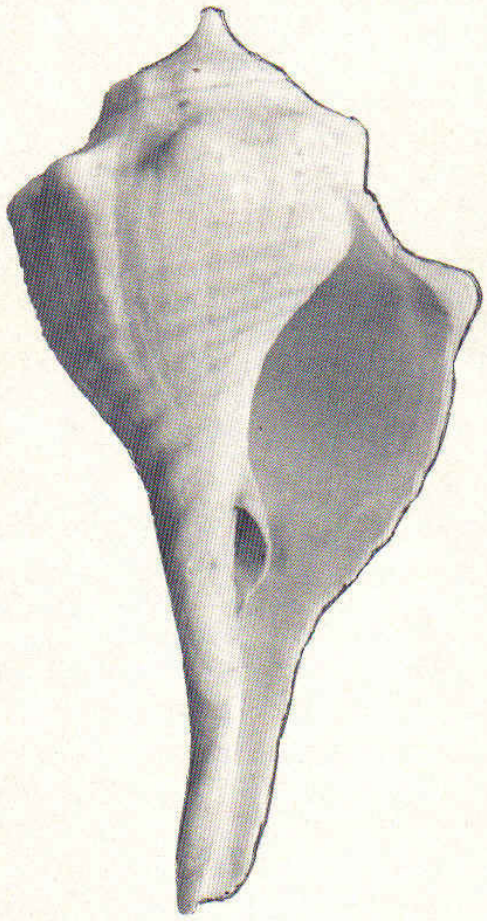
Traweled off Plettenberg Bay and Cape Point to 460 m. 102 x 54 mm.

Fusinus africanus (Sow.)

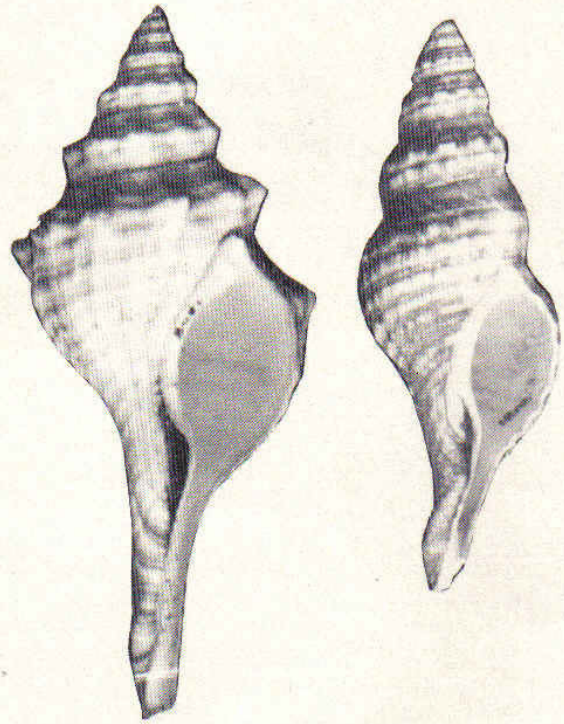
Some doubt exists as to the generic placing of this species. Trawled off Cape Point and Durban and has been found from Fullers Bay to Durban beaches. Length: 77 mm. Creamy yellow to pale grey brown with darker brown wavy longitudinal bands. Deep water Natal shells differ from Transkei beach shells and soft parts are needed to determine if the differences are significant.

Fusinus africanae (Barnard)

West coast of Cape Peninsula and Agulhas Bank to 250 m. 52 x 17 mm. Apparently quite rare. Grey-white.



Fusinus afracanus Sowerby



Fusinus ocelliferus Lamarck

Fusinus colus (Linn.)

Indo-Pacific and Durban to Bazoruta Is. 9 – 68,8 m. 97 x 20 mm.

Fusinus faurei (Barnard, 1956)

33 to 50 mm. Trawled from 1020 m off Cape Point.

Fusinus rubrolineatus (Sow.)

Agulhas Bank to 230 m. 50 x 22 mm. Pale buff with more intense colour on axial ribs.

"Fusus" cf. retarius von Martens, 1903

A single living specimen trawled near Port Elizabeth. Radula like that of *Fusinus rubrolineatus* (Sow.) of which it may possibly be a form.

Fusinus tuberculatus

60 mm. Occurs at Bazoruta Is.

"Fusus" toreuma (Martyn)

Barnard states that this species was recorded by Smith from Natal in 1903.

"Fusus" albinus (A. Adams)

Barnard mentions this species from Angola.

Peristernia forskalii leucothea Melvill

Previously known as *Peristernia leucothea.* This subspecies hybridizes with *P.f. foreskalii* (Tap.-Can.) in the Durban area. This latter extends to the Red Sea.

P.f. leucothea is a red animal with a white shell and has been found alive as far South as Port St. Johns. *P.f. forskalii* has stronger axial white ribs on a brown background. It has been synonomised with *P. nassatula* by Barnard 1959, which is larger and broader and comes from the Pacific Ocean. 25 mm.

Peristernia fuscotincta (Sow.)

Hermanus to Umkomaas. Turton's *Euthria ordinaria* is a

(Continued on page 3)

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synonym and Sowerby originally described it as *Euthria fuscotincta* (Fam. Buccinidae). 20 mm.

Latirus filmerae (Sow.)

Originally described as *Euthria filmerae* (Fam. Buccinidae). Radula still unknown. Port Elizabeth to Zululand. 24 mm.

Latirus alboapicatus E.A. Smith

Ex pisce off Natal, not many known. Similar to *L. filmerae* except that it has a longer siphonal canal and stronger axial ribs and shows greater colour variation. Living material of both species required to clarify relationships. 28 x 12 mm.

Latirus burnupi E.A. Smith

This is not a synonym of *L. alboapicatus* as stated by Barnard. Extremely rare, probably extinct and known only from Port Shepstone. 26 x 11 mm.

Latirus abnormis (Sow.)

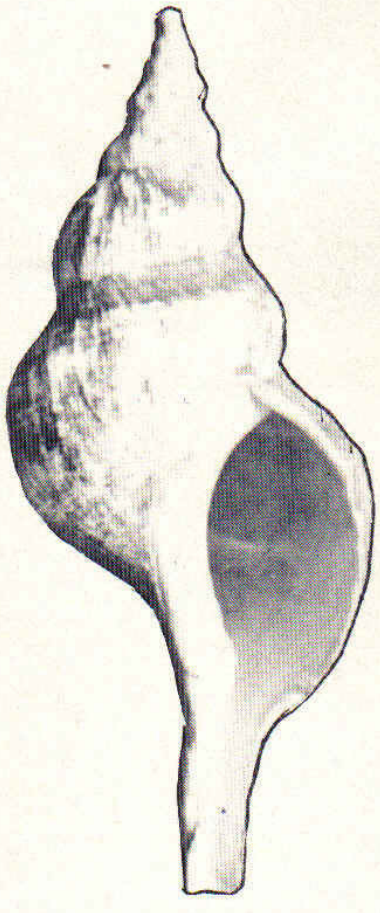
Kidd's Beach to Transkei coast and ex. pisce off Durban. Brick red with dark brown periostracum. 72 mm.

Latirus rousi (Sow.)

East London to False Bay. Broader, paler with shorter siphonal canal than *L. bairstowi.* 26 x 9 mm.

Latirus bairstowi (Sow.)

Mthlonyana to Jeffreys Bay. Chestnut brown, with darker siphonal canal. 28 x 8 mm.



Fasciolaria scholvieni Strebel, 1912

Latirus clausicaudatus (Hinds.)

Agulhas bank to Natal, to 150 m. 58 x 16,5 mm. Grey-white to pale buff.

Latirus turritus (Gmel.)

Natal. 45 x 17,5 mm. Apparently uncommon.

Latirus mosselensis Tomlin, 1932.

Off Mossel Bay in 27 fthm. Pale salmon.

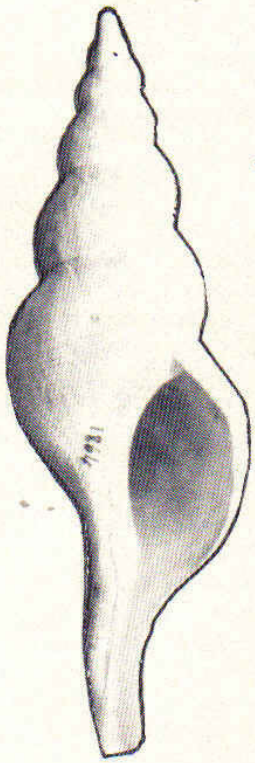
Latirus "amaliae" Kob

Natal. Although this name is in current use, it is apparently a different species.

? Fasciolaria holcophorus Barnard

Doubt exists as to whether this is a Fasciolariid. Off Cape St. Blaize, 125 fthm. 1 dead.

Note: Mr. Kilburn (pers. com.) doubts that the capsules found at Bulugha (see Biology) referred to in circular no. 114 of December, 1969 are *Fasciolaria lugubris*, and has identified them as *F. heynemanni.*



Fasciolaria rutila Watson, 1882

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NOTES ON SOUTH AFRICAN CASSIDAE

by M. EVA

(Unless otherwise stated, information is taken from Monograph on Family Cassidae, by Tucker Abbot.)

GENERAL

Approximately 60 living species. Most of these live in shallow water from low tide mark to a depth of approx. 100 m. Deepest record 1,100 m.

FEEDING HABITS

Echinoderms (sea urchins, pansy shells etc.) When feeding on sand dollars, or pansy shells, the animal feeds under the sand, with siphon protruding like a chimney. When attacking sea urchins, helmets (such as cassis tuberosa) elevate foot anteriorly, creep forward and fall upon the prey. Having paralysed spines with acid salivary fluid, the helmet rasps a jagged hole in the test of the urchin. These shells have been known to spend an hour feeding on an urchin. Feeding always takes place at night.

BREEDING HABITS

Phalium (Xenophalium) labiatum . . . . (Tucker Abbot). "In South Africa the sub-species *(Phalium (Xenophalium) labiatum iredalei)* is extremely variable, and in my opinion is an example of introgression or hybridisation with the probably deeper water, rarer *Phalium pyrum* (Lam.) This hybrid swarm seems to occur along the entire S. African coast from Cape Town to Durban, Natal. Numerous intergrades are found which connect the light-weight, smooth *iredalei* with the larger, heavier, knobbed hybrid *iredalei x pyrum* (Lamarck's *zeylanica,* and Marten's *intercedens".* (Now known as "forma *zeylanicum,* Bayer).

Some forms of *Phalium pyrum,* from New Zealand seem to be identical with shells trawled off East London.

Another form listed by Tucker Abbot is that of *elongate* – shell elongate with spiral brown bands on top of which are numerous small white spots.

Another form, listed as *Phalium labiatum labiatum* from Australia is said by Tucker Abbot to have "outer lip smooth, or more commonly with up to 24 small teeth." Two examples answering to this description (with teeth) were trawled off Durban recently.

Tucker Abbot observes that males are generally much smaller than females, which may account for the many undersized adult specimens found.

ANIMAL

Animal of *Phalium (Xenophalium) labiatum iredalei* as described by Barnard – "Beginners Guide". "Animal yellow with large flat foot. Head with two tentacles of yellow, with black stripes along the length. In males the penis is at the side of the head".

Eggs are laid in masses, closely packed, on rocks. Capsules contain up to 300 eggs, only between 4 and 12 surviving, the rest being for food or "nurslings" for the lavrae. Free swimming seems to last from 10 days to 3 weeks. (Tucker Abbot).

We would welcome any article of interest to Shell Collectors for future publication.

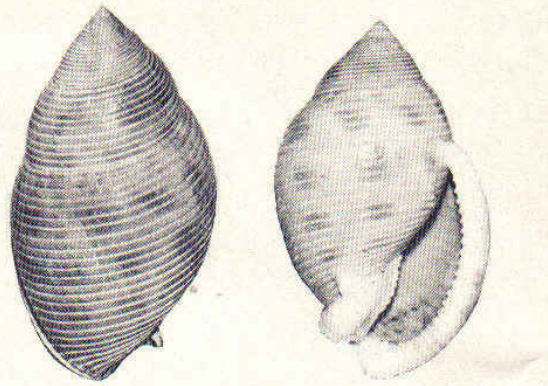
SOUTH AFRICAN SPECIES

Phalium (Semicassis) faurotis (Jousseaume 1888)

"This uncommon species is readily distinguished from its nearest ally, *bisulcatum* (Schubert & Wagner) by its bluish-black or purplish-brown apex; in having three or four large rounded knobs on the left border of the columella shield, and lacking a relatively wide channel or groove at the base of the last whorl, just posterior to the lower right margin of the siphonal canal. Variable in spiral sculpture and colour-spotting. It is the only species of Cassidae with darkly coloured nuclear whorls. Operculum strongly fimbriated with about 22 long chitonous denticles. Range: Scottburgh northward, Natal.

Phalium (Semicassis) bisulcatum (Schubert & Wagner, 1829)

Remarkable array of forms, both colour and sculpture. More coarsely sculptured in deeper, muddy water. Smaller, brightly spotted species in tropical waters, coral or sand. More than 1 varix seldom formed, except in heavy, strongly lirate specimens. In these, 1 to 6 varices may be found. Japanese *P.japonica* is a sub-species.



Phalium (Semicassis) bisulcatum (Schubert & Wagner, 1829)
Photo: Carlsson

(Continued on page 5)

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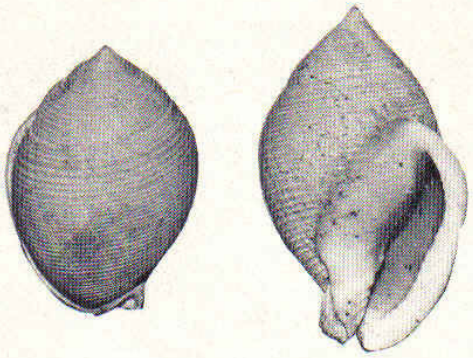
(Continued from page 4)

Phalium (Semicassis) craticulatum (Euthyme 1885) Cape Province, Natal, Mocambique. Type locality, Port Elizabeth. Also trawled 30 miles off Durban. Small, ovate, solid or fragile. Chief characteristic, narrowing anteriorly. No varices. Post-nuclear whorls with numerous crowded irregularly sized spiral threads, which may be crossed with growth-lines, giving surface a silky sheen under high magnification. Inner edge reflected, thickened, glossy outer lip bears about a dozen irregularly shaped teeth which are strongest below.



Phalium (Semicassis) craticulatum (Euthyme, 1885). Photo: Carlsson

Editor's Note: For further information on South African Cassidae readers are referred to The Strandloper No. 144 of September 1972 and No. 145 of October 1972.

RECONSTRUCTING A CORAL REEF

by DR. H.E. VAN HOEPEN

At the recent 50th Jubilee Congress of the South African Medical Association meeting, I was asked to take part in the doctor's hobby exhibition with a display of my shells. First of all I started by mounting good specimens of shells on appropriate coloured cardboards cut to size, mainly black, I realised however that a display of shells alone would lack life. I then formed the plan to make a replica of a coral reef – as near as lifelike as possible.

A number of problems arose, and these were solved, after some experimenting, in the following ways:

The coral heads were all white and had to be stained back into their natural colours. This proved to be very easy, once one knew how. I bought poster paints, mixed them to obtain the right colour (mostly colour with white) and then diluted this in a wash basin with water. A broken piece of coral dipped into this solution would soon show whether the solution was strong enough. Then I splashed the coloured water over the coral repeatedly. The coral absorbed the colour readily and evenly without altering the finest aspects of the structure. Even while wet, the desired colour could be judged and it only needed drying of a few hours to obtain very satisfactory results. If the colour was too strong, it could readily be weakened by washing in clear water.

Real rocks are heavy and one needs a variety of heavier rocks and flat rocks resembling dead coral slabs etc. Rocks were fabricated from foam plastic which is available in various thicknesses. It can be cemented together using alkaline glue (Alcolin) to give any shape desired. To colour them, I smeared the whole surface with Alcolin glue and sprayed this with sand of the desired texture and colour. After drying there would remain some white patches and these could easily be smeared with glue again and sand thrown against the glue. A slab thus prepared was used in the display, upturned to show the cowries adhering to the under surface.

A cleaned tridacna does not look live at all. The mantle was reconstructed with plasticine – any colour will do – and this was then painted in the natural colours with acrilic paints. Dots of green and white can easily be added after the basic colour has dried. I kept my reconstruction as a permanent feature in my collection.

Starfish, dried, have lost their original colours. They do not take up the colour as easily as the coral, and had to be painted with the undiluted (or very little diluted) colour paint by brush. This proved an easy task, but the paint is inclined to smear over the finer aspects of the structure. Although this spoils the scientific value of the starfish, it does not detract from its aesthetic value.

Dried sea-urchins need no further treatment and can be displayed as they are. The same holds true for dried hermit crabs in their shells. Cones with the periostracum still in place can be used in the display. Beach shells and pieces of dead coral add to the reality of the "reef".

White seasand is used (playpen sand for inland dwellers). If a little yellowish sand is used in parts, the effect is clearly that of wet sand. This can be used for instance, to illustrate the hole of a crab just dug.

Plastic replicas of seaweed and cymodocia can be obtained from display firms as well as beautiful replicas of crabs, crawfish, fish etc.

If the background is illustrated with enlargments of colour-photos of the actual reefs and some underwater pictures, a very pleasing display emerges.

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Cleto Graziani, Via Casoria 7, 00182 Roma, Italy. Collects both exotic and Mediterranean shells and would like to correspond with South African collectors in order to exchange news and specimens.

AROUND THE GROUPS

PORT ELIZABETH. Our October meeting was held at Uitenhage in the home of Mrs Burnett. Mrs Hoogenhout brought along various specimens of marine life washed up on the beach at Jeffreys Bay after a recent storm. These were accepted by Mr McLachlan for research at the University. Mrs Felgate showed a patella found in a penguin rookery on Marion Island. All reference books were brought out and it was finally decided that it was likely to be *Patella aenea* Gmelin. The meeting then discussed the family Cypraeidae. Members had gone to great lengths to make attractive displays. On 13th September a field day was held near Noordhoek. The weather was poor with drizzle and a strong east wind. Only four members braved the elements and we had to be satisfied with beach shelling. Some of the more special finds were: *Fissurella natalensis, Morula margariticola* and *Recluzia jehennei.* The beach was littered with *Janthina janthina* and *Janthina prolongata* and the next day specimens of *Janthina exigua* and *Janthina umbilicata* were found in Algoa Bay.

PRETORIA. Ons Oktober vergadering is deur die Voorsitter geopen en die ere-gaste Mnr en Mev Jenner en drie nuwe lede is verwelkom. Allan Jenner is toe aan die woord gestel. Die vergadering is onder andere vertel van hoe hy te werk gegaan het om meer inligting en literatuur in verband met die Ancillinae te bekom in samewerking met Mnr Kilburn van die Natal Museum. Die praatjie was besonder interessant en Allan is hartlik bedank.

CAPE TOWN. Our October meeting was held as usual in the Lecture Hall of the South African Museum. Mr Owen Griffiths, all the way from Australia, gave a very interesting talk, illustrated with many slides, on the Land Snails to be found in Australia and surroundings. He collects only land snails and during his brief stay in Cape Town is finding many shells us marine shell collectors did not know existed. On display for members to inspect was a book compiled by Eddie Ralph of the Transvaal Group on the Mitridae. This book has been bound and will shortly find its way into the Society's library.

INTERTIDAL TALK

We were late with the last issue of the Strandloper and because of the Christmas postal rush we must be early with this issue. This seems irrelevent, but it is the reason why we are so short on Group notes, exchanges and the like in this issue. Everything on hand went into the last issue.

In our rush to get the last issue to the printers we forgot to mention the mammoth task done by Eddie Ralph and the Transvaal Group. A truly magnificant work entitled 'Southern African Marine Shells; Gastropoda'. This book covers some 80 to 90 species of Mitridae. Each species is described and has a line drawing inset in a map showing collecting localities. Our thanks and congratulations to the members who were responsible for this work. The book which came in loose-leaf form has been bound free of charge by our printers and will shortly be put into the library.

We have been having a certain amount of trouble with the reproduction of photographs submitted in support of articles published. With this issue we are trying a new method and we hope that the reproduction will be of a better quality.

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