Table 1 (continued)

(4609) Pizarro	1988 E. W. Elst
(4611) Vulkaneifel	1989 M. Geffert
(4627) 1985 RT2	1985 H. Debehogne
(4633) 1988 AJ5	1988 H. Debehogne
(4636) Chile	1988 E. W. Elst
(4668) 1987 DX5	1987 H. Debehogne
(4684) 1978 GJ	1978 H. Debehogne
(4695) 1985 RU3	1985 H. Debehogne
(4697) 1986 QO	1986 H. Debehogne
(4744) 1988 RF5	1988 H. Debehogne
(4761) 1981 QC	1981 H.-E. Schuster
(4784) 1984 DF1	1984 H. Debehogne
(4793) 1988 RR4	1988 H. Debehogne
(4798) Mercator	1989 E. W. Elst
(4800) 1989 TG17	1989 H. Debehogne
(4804) Pasteur	1989 E. W. Elst
(4817) 1984 DC1	1984 H. Debehogne
(4821) Bianucci	1986 W. Ferreri
(4825) Ventura	1988 E. W. Elst
(4830) 1988 RG4	1988 H. Debehogne
(4843) 1990 DR4	1990 H. Debehogne
(4864) 1988 RA5	1988 H. Debehogne
(4931) 1983 CN3	1983 H. Debehogne and G. De Sanctis
(4933) 1984 EN1	1984 H. Debehogne
(4937) 1986 CL1	1986 H. Debehogne
(4938) 1986 CQ1	1986 H. Debehogne
(4939) 1986 QL1	1986 H. Debehogne
(4942) 1987 DU6	1987 H. Debehogne
(4985) 1979 QK4	1979 C.-I. Lagerkvist
(4993) 1983 GR	1983 H. Debehogne and G. De Sanctis
(4994) 1983 RK3	1983 H. Debehogne
(4999) MPC	1987 E. W. Elst
(5003) 1988 ER2	1988 W. Ferreri
(5022) 1984 HE1	1984 W. Ferreri and V. Zappalà
(5056) 1986 RQ5	1986 H. Debehogne
(5057) 1987 DC6	1987 H. Debehogne
(5088) 1979 QZ1	1979 C.-I. Lagerkvist
(5098) 1985 CH2	1985 H. Debehogne
(5099) 1985 DY1	1985 H. Debehogne
(5107) 1987 DS6	1987 H. Debehogne
(5108) Lübeck	1987 E. W. Elst
(5109) 1987 RM1	1987 H. Debehogne
(5115) Frimout	1988 E. W. Elst
(5127) Bruhns	1989 E. W. Elst
(5160) 1979 YO	1979 H. Debehogne and E. R. Netto
(5184) Cavaillé-Coll	1990 E. W. Elst
(5204) 1988 CN2	1988 E. W. Elst
(5229) 1987 DE6	1987 H. Debehogne
(5248) 1983 GQ	1983 H. Debehogne and G. De Sanctis

Table 2: Ranking list of ESO discoverers

1. Debehogne, H.	109	(19)
2. Elst, E. W.	20	
3. West, R. M.	18	
4. De Sanctis, G.	15	(15)
5. Lagerkvist, C.-I.	12	
Schuster, H.-E.	12	
7. Ferreri, W.	8	(1)
8. Netto, E. R.	4	(4)
9. Landgraf, W.	3	
10. Christensen, P. R.	1	(1)
Geffert, M.	1	
Hansen, L.	1	(1)
Nørgaard-Nielsen, H. U.	1	(1)
Pizarro, G.	1	(1)
Pizarro, O.	1	(1)
Zappalà, V.	1	(1)

Table 3: The ESO minor planet sky

(3496) Arieso	(4380) Geyer	(1679) Minnaert	(1637) Swings
(1501) Baade	(3371) Giacconi	(1691) Oort	(3765) Texereau
(2358) Bahner	(1894) Haffner	(1738) Oosterhoff	(2154) Underhill
(2145) Blaauw	(1650) Heckmann	(1629) Pecker	(2842) Unsöld
(1983) Bok	(4924) Hiltner	(4609) Pizarro	(2823) van der Laan
(1543) Bourgeois	(3573) Holmberg	(3933) Portugal	(2203) van Rhijn
(3363) Bowen	(3282) Spencer Jones	(2884) Reddish	(1946) Walraven
(4192) Breysacher	(1776) Kuiper	(4593) Reipurth	(2022) West
(1120) Cannonia	(2187) La Silla	(3871) Reiz	(2902) Westerlund
(4636) Chile	(1851) Lacroute	(2605) Sahade	(2301) Whitford
(1594) Danjon	(1448) Lindbladia	(1542) Schaleń	(1795) Woltjer
(3450) Dommanget	(1334) Lundmarka	(1743) Schmidt	
(1761) Edmondson	(4386) Lüst	(1235) Schorria	
(4385) Elsässer	(1527) Malmquista	(2018) Schuster	
(3433) Fehrenbach	(2131) Mayall	(837) Schwarzschilda	
(1561) Fricke	(4065) Meinel	(1422) Strömgrenia	

A Honeycomb in the Large Magellanic Cloud

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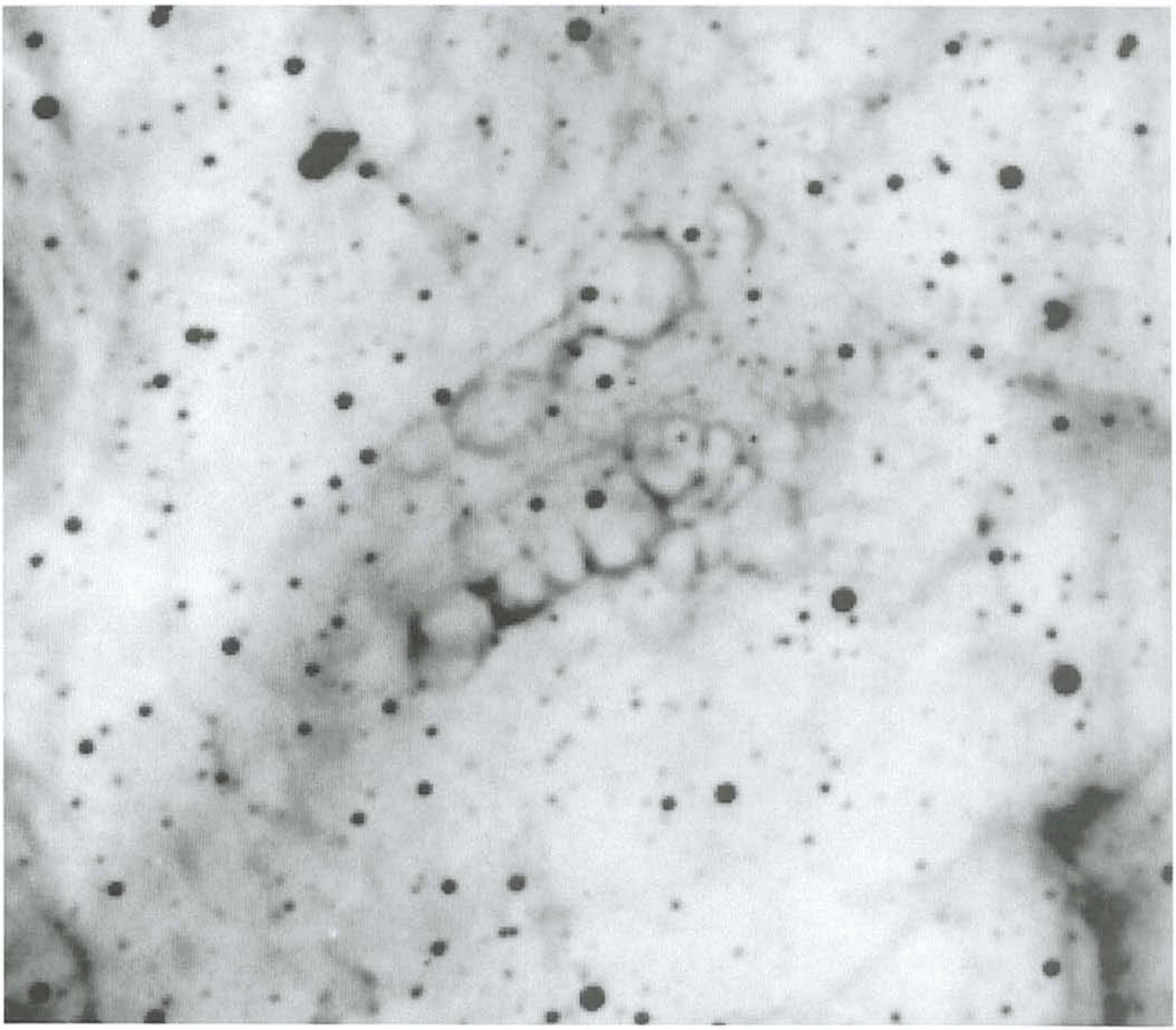
The beautiful image shown in the centrefold was taken by the ESO NTT on January 17, 1992. It was obtained with the ESO Multiple Mode Instrument (EMMI), in a narrow Hα filter and the integration time was 10 minutes. The original purpose was to observe the inter/circumstellar material around SN1987A; the results of that work can be found in the paper by Wang and Wampler (1992).

It is purely by chance that this strange nebulosity, reproduced in negative in the picture on the opposite page, was in the field of our CCD detector. As shown in the picture, it consists of over ten loops with a size of around 12 arcsec, or about 3 parsec at the distance of the LMC. The most remarkable features are: (1) all the bubbles are clustered along a filamentary nebula, 1.5 arcmin long and 30 arcsec wide; (2) the bubbles have roughly the same size; (3) they are rather circular. These features have led F. D. Kahn to suggest that this is a "honeycomb" in the LMC. The same bubbles were also observed in a narrow-band [OIII] 500.7 nm filter image.

Bubbles in the interstellar medium are not a rare phenomenon, especially in the LMC. The present "honeycomb" nebula is in fact located in a complex environment which is full of bubbles with sizes



Negative reproduction of the newly found "honeycomb" structure in the Large Magellanic Cloud, as seen in the light of Hα. North is up and east is to the left.

up to 30–40 pc across. These "super" bubbles may be due to OB associations or supernova explosions (Dyson and de Vries, 1972; Weaver et al., 1977).

Still, the origin of the "honeycomb" may be quite different, although it seems that there are only two possibilities – it is either related to the activities of the underlying stellar objects or it is independent of, or weakly dependent on, the stellar activity.

However, direct images taken in the continuum band do show an enhancement in the number densities of stellar objects in the neighbourhood of the "honeycomb". This implies that something peculiar might be happening here, and that the "bees" who made the "honeycomb" are perhaps the swarm of stars that is resident in the cloud. Bubbles of similar size can be easily produced by the stellar winds from massive stars.

If the "honeycomb" is indeed due to stellar activity, it will set very strong constraint on the nature of the underlying stellar objects. In order to produce a cluster of bubbles of similar size, the underlying stars have to be born at the same time, with the same initial mass and they must evolve at the same rate. The "honeycomb" will then be a unique object for the study of sequential star formation (see, for example, Elmegreen and Lada, 1977).

The morphology of the "honeycomb" makes it an interesting object in its own right. More work will now have to be done, both observational and theoretical.

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Weaver, R., McCray, D., Caster, J., Shapiro, P., Moore, R.: 1977, *Ap.J.*, **218,** 377.

Centrefold

10-min Hα frame, obtained with the NTT and EMMI. The frame has been rotated 30° clockwise for typographical reasons; the north direction is therefore at 1 o'clock. SN 1987A is at the centre and the strange "honeycomb" is visible in the lower left area. ▶