

UmQongo i-Helix planetary nebula. Lena enye yemQonga esondelene noNomkhubulwana eyaziwayo. Ukukhanya okuphatfuzwa lomQongo kuthathwa iminyaka engama-700 ukufika kuNomkhubulwana (kanti ukukhanya okusuka eLangeni kuthatha imizuzu eyisi-8)

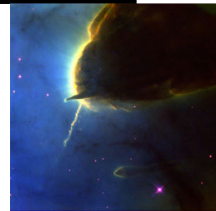


Izinkanyezi ezinesisindo esilingana neselanga zifa ngendlela ezolile. Ziyakhukhumala ngosayizi, zilahlekelwe ubuhlalazi bangaphandle, obukhanyiswa izinsalela zeNkanyezi, okudala lokhu esikubona njengesidangazela. Igama elithi « planetary nebulae (isiDangazela) » laqanjwa ngu-William Herschel ngonyaka we-1785 ukuchaza lezisiDangazela ngoba zazibukeka njengemihlabha eziPopolweni zakhe zoMkhathi. Wagcina ezisola ngokungazibizizi nge-« stellar nebulae ».

IsiDangazela



Imibuzo



Uyazibona lezi zinhlobo zemiqongo?



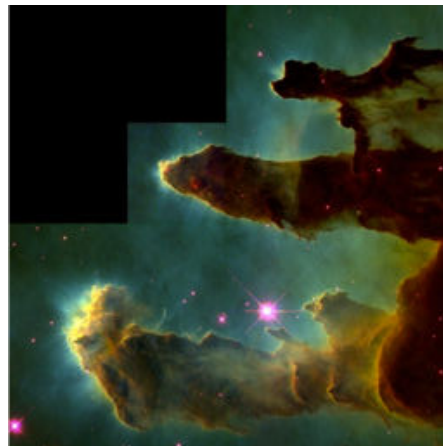
Izimpendulo zitholokala ku-overleaf

Amafu aluthuli i-Horsehead nebula. Yakhawe ngemizwayi exutshwe nomoya.



Izinkanyezi azingunaphakade: Njengabantu, ziyazalwa (ziyadaleka), ziguquguquke, beseziyafa. Zidaleka emafini asiluvuluva amakhulu, ngezindlela ezingaqondakali kahlehle. Lezizindlela zibandakanya imfingqonyanda, okwevumela utho ukuthi ifinyelele kwisiluthu esiphuzulu esitholakala phakathi emathunjini ezinkanyezi. Ezinye zalezizinkanyezi ezisanda kuzalwa (kudaleka) zishisa ngalendlela yokuthi zikwazi ukususa izinxhalesi kumaChwe kulamafu ezizalelwe kuwona, okudala amafu aHonyozekile njenge-Orion.

Lapho kudaleka khona izinkanyezi



Ingxenywe yamafu aluthuli i-M16, ebizwa nge « Pillars of creation ».

Kusemafini anjengalawa lapho kudaleka khona izinkanyezi ezintsha.

Amafu aluthuli

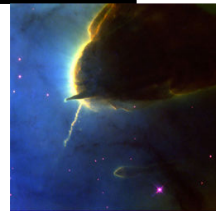
Ezithombeni zemiqongo kanye nemithalakazi, kuye kubonakale izindawo ezimnyama. Lezizindawo zakhiwa ukuqoqelana kwemizwayi yoThunqathunqa phakathi kwezinkanyezi.

Lemizwayi, engabonakali ngamehlo eyakhiwe ngoHoyana leCatalahe noma leSiphemba olumkhumanga, igwinqa impukumpeku kwiWigo elibonakalayo kwizinkanyezi ezisondelene nayo.

Ngenkathi amazinga abo okushisa ehla, bakhipha ukukhanya okungabonakali ngamehlo kodwa okukwazi ukuhlungwa iziPopolo zoMkhathi ezakhelwe ukuhlunga lengxenywe yeWigo.



Imibuzo



Uyazibona lezi zinhlobo zemiqongo?



Izimpendulo zitholokala ku-overleaf

UMkhathilibe Ephaketheni Lami



UMkhathilibe osamQonga



Grażyna Stasińska
Paris Observatory

Izinsalela zesiDangazelakazi

INkanyezi enesisindo esikhulu ifa ngokuqhuma okunamandla. AbaFundindalo bomkhathi bakubiza lokhu ngokuthi « IsiDangazelakazi », ngokuba babezitshela ukuthi babebona ukuzalwa (ukudaleka) kweNkanyezi entsha endaweni lapho khona kwakungekho Nkanyezi. Sesiya zi manje ukuthi isiDangazelakazi kusuke kuwukufa kweNkanyezi, lapho khona iphalalisa eMkhathini lokho esuke ikwakhile empilweni yayo.

Izinsalela zesiDangazelakazi ziyimQongo, okuyilokhu okusalela ngemuva kokweqhuma.



Amafu aluthuli i-Orion. Iwona akhanya kakhulu ukudlula amanye amafu emkhathini, kanti futshi akwazi ukubonakala nangamhlo.



UmThalakazi i-Spiral galaxy M101. LomThalakazi uyafana noMzilafasimbe. Ezingalweni eziyizingoqela, kuyilapho kudaleka khona izizukulwane ezintsha zezinkanyezi. Kuqukethomagama lemFundandalo yomkhathi yase France u-Charles Messier olafafazwa ngonyaka we-1781, lomThalakazi uchazwe « njengomQongo ongenaNkanyezi, olufiphi & omukhulu impela ».

M17, Amafu asilavulavu lapho kudaleka khona izinkanyezi.

NGC 2207 kanye ne-IC 2163, imiThalakazi engoqela eshayisanayo.

IsiDangazela i-IC 418, esibizwa nge « spiral graph nebula ».

The Unicorn: Ingxenye ye-Trifid nebula esithwe uthungathunqa.

ImiThalakazi

ImiThalakazi iyisicacacolo seziNkanyezi esingabuketha iziNkanyezi ezilinganiselwe kwikhulu lezigidigidi. Ezinye zazo, lezo eziyizingoqela noma eziyiyayinga, nazo ziqubethe inani eliningi lezithungathunqa. LemiThalakazi isadala iziNkanyezi, kanti futshi liphakethi iziNkanyezi « ezintsha » ezineminyaka elinganiselwe kwizigidi ezimubalwa. Eminye imiThalakazi, leyo isimo sayo esisaBhola lombhoxo, ayisaidali iziNkanyezi. Zonke iziNkanyezi zayo sezigigile, ezinye zazo zineminyaka elinganiselwa kwi-10 lezigidigidi ubudala.

Kudala imiThalakazi yayibizwa « ngemQongo » ngenxa yokuthi kwakungakaziwa ukuthi zazakhiwe isicacacolo seziNkanyezi.



UmQongo obanjwe nge-Crab (iNkalankala). Lezi izinsalela zesiDangazelakazi ukuchuma kwaso kwaqoshwa abafundindalo bomkhathi base China ngonyaka we-1054.

Umkhathilibe Ephaketheni Lami woku-1 LeNcwajana yabhalwa ngonyaka we-2013, ibhalwa ngu-Grazyna Stasiniska wase Paris Observatory (France) yaphinde yaningilizwa ngu-Stan Kurtz wase-UNAM Radio Astronomy Institute e-Morelia (Mexico). Inikelelwe kwizingane zesikole i-Choroni (Venezuela) kanye nemindeni yazo.

Ikhava yangaphambili ikhombisa umQongo obizwa nge-Cat's Eye. Izithombe kuleNcwajana zitholakale ngoosizo le-ESO lanye telescopes kanye ne-Hubble Space Telescope. Zihlinzekwe izinhlangano i-NASA, i-STScI kanye ne-ESA.

Uma ufuna ukufunda kabanzi ngaloluChungechunge kanye nezihloko ezethulwe kuleNcwajana, sicela uvakashele u- <http://www.tuinip.org>



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Sonke sesike sazibuka iziNkanyezi ebusuku. Zibukeka sengathi ziqhingsiwe ebumnyameni bomkhathi! Lokhu kuyinkohliso nje. Akukho linya phakathi kweziNkanyezi, kapha kuno klibidibi loHoyana, amaChwe, kanye nobumbanomaChwe. Inani eliyizigidi norma izigidigidi elifukamelwe kwi nitha ntathu elibodwa. Lamahoyana athuthelaka phakathi nezinkanyezi kumafu aluthuthu.

Lamafu alufifi kanti amubalwa abonakala ngamhlo. Ngoosizo lweziPopolo zoMkhathi ezinkulu lapha emhlabeni kanye naseMkhathini, abafundindalo bomkhathi bakwazi ukubona ubunotho bemQongo yomkhathilibe kanye nokufafaza izithombe ezinhl e zalemQongo.