

Doos: hi gemma
gemma4258 entered the room.
gemma4258: oh i hate this chat thing
Doos: hi 2nd gemma
Doos: lol
gemma4258: im gemma. this is just screwed up
gemma4258: ok
gemma4258: i have to check my horses and feed my cats then brb
gemma4258: did you see my previous monologu that i think i dumped
Doos: at the bottom there are some pictures, click on the most right one to leave and re-enter
Doos: I didn't see it
gemma4258 has left the room.
Guest entered the room.
Guest: oh hell forget it. im guest today
Doos: hehe
Guest: ok here are my questions
Doos: isn't the other window working?
gemma: 1. Crystalline structure of emerald and jade is the same. Why one is transparent and the other opaque? 2. Compare a well-formed colorless quartz specimen that shows symmetry and a lump of amethyst with no visual symmetry. Both have the same crystal structure. How they can be of the same crystal structure but look different? 3. Chemically Opal has practically the same ingredients as quartz except it has as water, and yet it is noncrystalline/amorphous/mineraloid. How did this happened? How did Opal and up amorphous instead of being crystalline? 4. .Discuss chemical composition of azurite. $\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$. What is the function of these subgrouped/radical compositions in the formation of azurite? 5. "A trained chemist can tell about the bonding by the chemical formula." What does this statement mean? How? 6. In the GIA manual I can look at a cross-section of a liddicoatite tourmaline (does that mean I'm looking down the C-axis?). There is a pink triangle in the center containing a magenta Y. The edges of the center pink triangle are layers of pink and green and brown. Between the edges of the center triangle and the edges of the outer hexagonal form are layers of green and yellow (this is not what I am looking at but may help understand my question <http://www.geminterest.com/spectlist.php?ID=58>). GIA writes "Liddicoatite, a calcium-rich lithium tourmaline, was recognized as a separate mineral species." How is this different from "tourmaline" and why is it still tourmaline? How can it be a separate species and still be tourmaline?
Doos: uh
gemma: oh hell, i see what i've done. just a minute
Guest has left the room.
gemma: ok here i am
Doos: that's better
gemma: will brb. are these questions too weird?
Doos: I couldn't read the questions, too much for my screen to handle
gemma: can i email them to you?
Doos: do them one by one

gemma: k. then i will brb :lol:
gemma: 1. Crystalline structure of emerald and jade is the same. Why one is transparent and the other opaque?
Doos: but maybe wait for the others, they should be here soon
gemma: ok. you guys talk and i'll catch up when i get here.
Doos: you gotta go?
gemma: i have to check the horse to make sure they are still alive. overslept.
gemma: yes, but will be right back. promise!
Doos: okay, have fun
gemma: brb
Annie entered the room.
Annie: G'day
Doos: hi annie
Annie: how you going
Doos: all well down south?
Doos: doing good here
Annie: great, is gemma here
Doos: yes, but she is feeding the horses, she shall be back in a bit
Doos: she has tons of questions
Annie: oh, right.
Annie: yes, i just have to send you something
Annie: print it out
Doos: okay
Annie: i haven't read it yet but it seems interesting
Doos: about the lottery?
Annie: i am going to send now by email
Annie: no not about lottery
Annie: gemma's email
Doos: no mail yet
Annie: check your email now
Doos: I have it, reading now
Doos: let's wait till she gets back?
Annie: ok
Doos: good questions btw
Annie: dam, i am trying to print it out and my ink is run out
Doos: we'll just go over them one by one
Annie: yeah
Doos: and remind me to log this chat later
Annie: ok
Annie: maybe i should shake my cartridge
Doos: squeeze the last drops from it
Annie: yeah trying to
Annie:
Annie: i think this is gona work
Doos: heh
Annie: ok - it worked
Annie: got it now
Doos)
Annie:
Doos: happy clam
Annie: sweat
Doos: not a bad idea to e-mail difficult questions before the chat begins
Annie: ok reading now. but is Jen coming
Doos: I dunno
Annie: do you know'

Doos: she told me yesterday she got a handle on the symmetry planes, that was good to hear
Annie: yeah i just caught her on msn - i think it was yesterday
Annie: and i asked how she was going with study of crystallography
Annie: and apparently
Annie: gemma and herself talked about it
gemma: i'm back. just need a cuppa and then diving in for serious business.
ponies alive and well
Annie: hey
Annie: good to see you
Annie: cuppa sounds great
gemma: ok. piece of bread in mouth, hands free. let's go
Doos: ask the first question gemma
Doos: (again)
gemma LOL: ok. so you think my questions are ok to discuss?
Doos: oh yes
Annie: of course, anything you want
gemma: 1. Crystalline structure of emerald and jade is the same. Why one is transparent and the other opaque?
Annie: but slow down, we are not going anywhere
gemma: (you can hear my hoofbeats pounding?)
Doos: First of emerald is hexagonal and jade is monoclinic
gemma: ok. let me grab the source where i got it
Doos: and jade is mostly polycrystalline
gemma: ok. explain the polyc
Doos: polycrystalline crystals are so small you can't even see them with a microscope
Doos: microcrystalline crystals are also small, yet can be seen under magnification
gemma: ok. so i misunderstood the "shape" relationship in the question.
Annie: submicroscopic inclusions like aggregates - massive
Annie: or hang on its more interlocking and granular crystals
Annie: in structure
gemma: so jade is made a mass of monoclinic microscopic granular crystals
Doos: jade is sometimes massive
gemma: define massive
gemma: i thought all jade had minute c struc
Annie: massive is - = without shape
Annie: a big lump or mass
gemma: but jade always has some angularity to it doesn't it?
Annie: always opaque = never complete transparent
Doos: massive is sometimes used to describe minerals which do not possess the outward geometric shape, or are composed of aggregates of small crystals
Annie: maybe sometimes translucent
Annie: yes, and the chem compo is sodium aluminium silicate
Doos: imperial jadeite is very translucent
Annie: emerald is beryllium aluminium silicate
Annie: yes that is an exception
Doos: I'm not sure but my guess is that jades are found in basalts
gemma: why?
gemma: why basalts?
Doos: rapid cooling of the magma
Doos: but I need to read up if that is correct
gemma: ok, so amorphous only appears to have no c struc but
gemma: does microscopically like jade?

Annie: may occur as intermediate growth with at least two closely pyroxene
Annie: which continue in isomorphous series'

gemma: i'm reading, annie, but you do know i am lost there. am assuming this is
for doos, which is fine -- someday i will understand

Annie: gemma, i know we are lost

Annie: no its not for Doos, its for you

Doos: gemma, microcrystalline means that they have the crystal structure, you can
just not see it with the naked eye

Annie: but why this such a hard question

gemma: oh, doos, thanks. so amorphous appears to have no c struc but does? it's
just so tightly packed because monoclinic

Annie: submicroscopic inclusions are very hard to see because they are so small
to be seen or identified

Doos: half correct gemma, amorph means "no crystal structure", so not monoclinic

Doos: mono*

Doos: like glass

gemma: ok. so back up. jade is massive?

Doos: yes, polycrystalline .. so it is made of crystals (you just can't see them
because they are so small)

gemma: thank you. i understand what GIA was trying to say. i misunderstood the
question.

gemma: has clarified it for me.

Doos: amorph substances are not crystalline (not even under the highest
magnification)

gemma: right. glass.

Doos: yes

gemma: because they bind so loosely?

Doos: I think it's mainly because the cooled so fast, they had no time to
crystallize

Doos: (but I'm no chemist)

gemma: ok. i will look at that cooling cant crystallize process more closely

gemma: next ?

Doos: other forms of amorphous substances are vegetable gems

gemma: ok. that helps.

gemma: so the cooling is a solidification of gases? don't laugh

gemma: you know what i mean.

Annie: yes

gemma: thank you.

gemma: whew

gemma: this is great.

Annie: we talked about these gases about 2 weeks ago

gemma: well, i missed it. sick horse. sorry.

Annie: do you have it

gemma: yes, i think i've got it!

Annie: ok

gemma: the rain in spain . . .

Doos: lol

gemma: next question?

Doos: yes

gemma: Compare a well-formed colorless quartz specimen that shows symmetry and a
lump of amethyst with no visual symmetry. Both have the same crystal structure.
How they
can be of the same crystal structure but look different?

gemma: this came from GIA course.

gemma: make sense?

Doos: yes
gemma:
Doos: usually amethysts have well formed crystal shapes (look at the geodes)
gemma: yeah, we have lots here.
Doos: but the question is valid
Annie: yeah,
Doos: picture a mountain made of old magma
gemma: who's he? ;
gemma: sorry. ok. i am
Doos: over time the elements (wind, rain etc) wash down the tops of that mountain
gemma: yes we have an old range here like that (not a cook stove either)
Doos: that causes the formally well-defined crystals to roll down and get damaged
Annie: sorry, just had Jen on the other line
Doos: like if you would roll down a mountain, changes are you look different after
gemma: hence the concave cleavages, etc
Annie: she will come - she just got up
Doos: yes
gemma: we lazy NAmERICANS.
gemma: ok. so does it just appear the amethyst is a lumpy mass but that it really was originally a huge crystal
Doos: yes
gemma: so then amethyst is never really "a lump", that is a red herring
Annie: yes why would amethyst be growing as a lump
Doos: internally the crystal structure remains the same
Annie: its always got a nice structure
Annie: internal physical and optical properties will always be the same,
gemma: ok. what GIA gave as example . . .
Jen entered the room.
Doos: hi Jen
Annie: ok
Jen: hi
Annie: hi Jen
gemma: was a nice picture of well-defined colorless quartz (hi jen) and then a pic of
gemma: amethyst that appears to be a lump but i see now is as i described. . .
gemma: full of concavities, etc.
Annie: Jen did you get yourself a cuppa yet
gemma: so obviously they are basically the same, but appear different to unknoleged
Jen: no i am out of coffee
gemma: here, have some of mine
Annie: ohh
Jen: HI GEMMA
gemma: hey girl
Doos: amethysts usually form from gasses/water under high pressure/temps in caves deep in the crust of the earth
Jen: sure
Jen: i need one so bad late late night for me
gemma: ok doos, but i thought things forming from gasses . . .
gemma: cooled quickly and became amorphous
Jen: i went to answer you on messenger and you were gone
gemma: yeah, jen, jumped back here so i didn't get distracted
Doos: gemma if it form in the crust, the cooling occurs very slow

gemma: ok. so obsidian forms on crust?
Doos: no
Doos: uh yes
Jen: can i say something about opal
Doos: sorry
gemma: ok jen
Jen: i have heard that there is opal now found that has a crystal form
Jen: i am sure my mom and dad read that somewhere
Doos: you have to take that one annie
gemma: yes, Lady Tanzanite, expound please.
Annie: opal is amorphous
Jen: maybe i am remembering what i heard wrong
gemma: (created from cooling gases?)
Annie: has no structure, all jelly and water
Jen: but i was sure they read somewhere that opal has been found in crystal form
Annie: i haven't heard that
Annie: really
Doos: maybe it looked like opal
gemma: there are crystals in opals though, right?
Jen: hmm i will have to ask them again
Annie:
gemma: i mean, the slidey plate things?
Doos: no gemma, hence amorph
gemma: ok. red herring.
Jen: maybe it was something else and i am remembering wrong that is a possibility
gemma: jen, did you read the email with questions i wanted to discuss . . .
gemma: thinking you wouldn't be here . . .
Annie: maybe rocks are changing shape
Doos: Jen: did they read it on ebay
gemma lol:
Annie: don't believe anything you read on ebay
Annie: i don't
gemma: jen-- do you want to follow CGA ? now that you are here? find with me
gemma: find with me . . . sorry
Jen: no they have nothing to do with ebay
gemma: then it can't be opal, right annie and doos?
gemma: it's something else.
Annie: yeah
Jen: hmm just go ahead for now i have to wash clothes from last night they stink
gemma: why twist the definition of opal
Doos: Jen: stranger things have happened, but I'm sure if that's true, they will give it a different name
gemma: sounds like a marketing gimmick to me
gemma: ok. i'm in control again. such a good american :LOL:
Annie: i am surprised indeed
Annie: lol
gemma: ready for another question?
Doos: shoot
gemma: BANG!
Doos: heh
gemma: ok. Chemically Opal has practically the same ingredients as quartz except it has as water, and yet it is noncrystalline/amorphous/mineraloid. How did this happened?
How did Opal and up amorphous instead of being crystalline?

Doos: there is an ozzie here, so
gemma: oh, laughing. . .
gemma: i looked to see who came in. you meant aussie
gemma: hahaha
Annie: yes, thats true
Annie:
gemma: ok. expound, Lady Tanzanite
Annie: its to do with its growth again and its conditions
Annie: opal bein amorph
gemma: wait -- where does the water come in?
Annie: no structure as explained before
Annie: it takes long time for an opal to become an opal from dripping waters of surround
Doos: annie: are opals formed in granites/pegmatites?
Annie: and it makes up of tiny little spheres
Annie: and when the spheres are evenly oriented it creates something special
Annie: i am trying to explain this easy way out
gemma: (please explain "evenly oriented" when you are ready)
Annie: as we don;t want to loose
Annie: little round tiney spheres arranged in a regular geometric
gemma: spheres of water? this is where i am lost.
Annie: and each is filled with jell
gemma: silica gel?
Doos: yes gemma
Annie: yea
gemma) !
Doos: like those implants
Annie:
gemma: your? ok anyway
Doos: so it's not really water
gemma: if it is a gel there must be water, no?
Annie: the arrANGEments of spheres froms the diffraction grating structure
gemma: of some sort? ionic or whatever?
Annie: not the water Jen might want to drink
gemma: she might . . .
Doos: lol
Annie: it results in small voids in between
Annie: or holes
Annie: the holes provide optical disconinuation and light is reflected and diffracted into different wavelengths
Doos: it's acts like a glue
Annie: similar to rainbow
Doos: (did I say that correct)
gemma: (please "diffraction grating structure" when you are ready)
Annie: play of colour offucrs
gemma: acts like a separator, not glue . . . ?
Annie: i could draw it for you
Annie: but not on the keyboard
Annie: i might send a picture for you
gemma: and the colors come from refraction of the mineral it all?
gemma: minerals surrounding it all, sorry
Jen: ok i am back for now and am reading, i am not awake enough to think of questions just got past a hurdle and havn't had time to find more lol so continue and i will
read

Annie: the spheres make up the play of colour within the structure
gemma: the gel in the spheres -- how do they make up the color play if they are liquid?
Annie: this morning we are having a full on class Jen
Annie: so relax
Annie: you might have to read over it again later
Doos: gemma: have you ever taken a bath with bubbles?
gemma: i am saving it jen
Annie: I have to remind Doos later to log it
Annie: he told me so
gemma: are you insinuating I may have never had such an experience?
Doos)
gemma: ok. yeah
Jen: well then i can just go back to bed lol
Doos: gemma: then you'll see the play of colors in the bubbles and they change when you look at them from a different angle
gemma: yeah. but that is light . . .
Doos: the bathstuff is a gel aswell
gemma: duh
gemma: got it.
Annie: Opals forms in sediments
Doos: dopeslap yourself
gemma: ouch!!!
Doos: lol
Annie: that was a hard one
Annie: for Doos
gemma: ok. let me say this back then
Doos: thanks annie
gemma: to see if i have it.
Annie: summarise
Doos: that actually makes more sense annie
gemma: can't. im american
gemma: the color of the play is from the light/gel relationship. what part does the minerals surrounding the gel play?
Jen: i am going to go for now and wake up and eat i will read this later, thanks all
Jen: bye
gemma: by jen
Doos: bye jen
Annie: bye Jen
Jen has left the room.
Annie: when opal has play of colour is called precious opal making up evenly arranged shpheres and light is reflected from those
Annie: when its is irregular and is without the play of colour and dull looking thing is potch or common opal
gemma: is this also fire opal?
Annie: and i will send you a picture of those
gemma: i know what they look like. RJ sent me some
gemma: one by mistake bless his heart!
Annie: ok rightio
gemma: but he said i could keep it. bribery!
gemma: so is fire the Potch ?
Doos: today I got a dvd from him, datestamped august 18
Annie: there are different types
gemma: help, i can't type

gemma: ok guess i can sorry
Annie: like different types of opals
Annie: you wana know all the types or shall we move on to other of your questions
gemma: no, i just want to make sure i know how the color in opal works
gemma: does the minerals involved have anything to do with the color, with the type, etc. or nothing?
Annie: it has to do with its types and structure and geological environment
gemma: ok. i will have to read on that. (and if you are getting tired annie i understand)
gemma: next ? if you aren't all too tired?
Doos: gemma: like rutile inclusions in sapphire, the silicon oxide in opal enhances its color
Annie: as there are some that grow in sediments, volcanic ones or metamorphic
gemma: ok, doos, that was my suspicion. thanks.
gemma: are you too tired to continue annie?
Annie: yeah i am tired and its 1.20 am here - so my brain might not be working well at this hour
Doos: just sit in annie
gemma: if you want to go, that's ok. i appreciate the time we've spent. it has helped.
Annie: so excuse me if i am slow
gemma: but if you want to stay and audit and pitch in . . .
Doos: go on with the next question gemma
gemma: k.
gemma: Discuss chemical composition of azurite. $\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$. What is the function of these subgrouped/radical compositions in the formation of azurite?
Discuss
chemical composition of azurite. $\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$. What is the function of these subgrouped/radical compositions in the formation of azurite?
gemma: my question is about the subgroups.
Doos: nice one
gemma) im cute too
gemma LOL:!
Doos: the subgroups (radicals) form ions on their own (as a group)
Annie: gosh, and i thought our FGAA was hard ??
Doos: CO_3 is a carbonate
gemma: (i am looking up the ionic bonding thing while reading)
Annie: somewhat unstable conditions
gemma: annie -- this isn't a GIA question (laughing) but questions that arise from my reading it that they don't explain
Annie: ohh.. and i thought they were Gia,
Doos: ionic bonding involves the transfer of electrons between metals - non-metals
Annie: right
gemma: right. the instability thing.
gemma: that's why they subgroup?
Annie: so if one is missing one, the other one lends a hand
gemma: and then bond as that radical?
Annie:
gemma: thanks
Doos: the radicals behave as one ion (a charged atom)
gemma: but are still unstable?
Doos: not when bonded
Annie: yeah

gemma: ok. once they bond to the other elements
Doos: on their own they are unstable
gemma: right. but they bond outside of their radical group which stabilizes
Doos: yes, you got it
gemma: i'm good at radical :lol:
Annie: they need a helping hand again
gemma: k. so they can "stand" solidly
Doos: they don't like that
Annie: no, the occurrence is that they don't want to
Annie: it is a secondary ore of copper
gemma: azurite is an ore
Annie: malachite
Annie: the other
gemma: oops.
Annie: typical azzurite blue often
gemma: my question was about azurite so i assumed.
Annie: with green from malachite trace
gemma: yes, i have a lovely malachite strand
gemma: huge spheres.
gemma: nice old boyfriend . . .
Annie: very close
gemma: so you are saying malachite and azurite are both secondary ores of copper?
Doos: they are compounds
gemma: yeah
Annie: yep in their compounds and structure of formation
gemma: compounds built with copper
Annie: again massive in their habit
gemma: because of the oxygen/hydrogen mix?
gemma: the cooling process thing?
Doos: uh no
gemma: explain.
Doos: the cooling is right, the O H not particular
gemma: explain please
Doos: small crystals usually form by (relative) rapid cooling
gemma: yes
Doos: the different minerals in a compound are just close close together, therefor forming (sometimes) a nice gem like azurite, lapis etc
Doos: yet there is no mineral called azurite
gemma: huh?
Doos: like water and tomatoes forming a tomatosoup
gemma: excuse me but azurite is in the friggin' course material :lol: . help me here.
gemma: oh, azurite is not a mineral but a compound of minerals?
Doos: Uhm, guess I messed up
Annie: yes, it is also found in lapiz lazuli
Doos: azurite is a mineral
gemma: whew. let's put it down to trying to think in a second language .
gemma: so which is it? azurite is a mineral or not?
Doos: it is
Annie: yes'
gemma: ok. but it is also made up of a compound of minerals as well?
Doos: it's massive
gemma: well, no this is really quite a small specimen (laughing)
gemma: ok. everyone awake still or need to quit?

Annie: if its small they can cut small stones
Annie: we may have to continue with this in later class, gemma
Doos: I'll read up on Lazurite
gemma: i was just kidding annie.
gemma: i am a great kidder.
gemma: ok.
Annie: i know you are cute
gemma: we've been on 1 1/2 hrs. that's enough for any braind.
gemma: woop. brain (as if i had one!)
Annie: yes you doing fine
gemma: so you guys want to call it a night?
Doos: and you're making us thing
Doos: nah
gemma: no, i am making you think.
Doos: heh
gemma: i don't think i want to know about the other, doos . . .
Doos: lol
gemma: so you are going to bed, annie and take care of yourself?
Doos: just go on with the questions gemma
Annie: yeah i will, i think
gemma: ok, Lady Tanzanite. sleep well
gemma: we need you, dearie.
Doos: night annie, till soon
Annie: i will catch you soon
gemma: yes, we will yell cooiee!
Annie: good night all
gemma: night.
gemma: ok doos, now don't lead me astray here . . . (laughing)
Annie: thankss for coming
Doos: I promise to behave
Annie has left the room.
gemma: next ? is "A trained chemist can tell about the bonding by the chemical formula." What does this statement mean? How?
gemma: remember, these are not GIA questions, only questions derived from statements they make that they don't explain.
gemma: i do not accept authority well (lol) and i think GIA demands it. another american thing . . .
Doos: it means that a gemmologist should know some about geology and chemistry, but should not pursue a carrear in those subjects (although it won't hurt)
gemma: oh, really. so a gemmologist cannot normally tell . . .
Doos: we need to know the basics
gemma: oh. i will reign in my curiosity then.
gemma: next ?
Doos: a normal gemmologist doesn't need to know about P2 and P3 bonding in carbon
gemma: k. then here is my last question.
gemma: In the GIA manual I can look at a cross-section of a liddicoatite tourmaline (does that mean I'm looking down the C-axis?). There is a pink triangle in the center containing a magenta Y. The edges of the center pink triangle are layers of pink and green and brown. Between the edges of the center triangle and the edges of the outer hexagonal form are layers of green and yellow (this is not what I am looking at but may help understand my question
<http://www.geminterest.com/spectlist.php?ID=58>). GIA

writes "Liddicoatite, a calcium-rich lithium tourmaline, was recognized as a separate mineral species." How is this different from "tourmaline" and why is it still

tourmaline? How can it be a separate species and still be tourmaline?

Doos: if you look from the top down, you are looking at the c-axis

gemma: k. then i'm that flippin' far in my schooling! ha

Doos: tourmaline is trigonal (the english sub-division of the hexagonal system)

gemma: yes. i accept that

gemma: there is a sidebar to that if you are interested

gemma: for a moment only

Doos: tourmaline is one of the most complex group of minerals, the one we most see is albeite

Doos: what is the sidebar?

gemma: i believe the reason why GIA doesn't want the trigonal separate is that the human brain can only easily grasp six total images at the same time . . . why try harder?

Doos: heh

gemma: that's funny but i'm kind of serious!

gemma: ok. please continue

Doos: tourmaline group is more complex than the garnet group

gemma: so am i just asking too big a question for my current britches size?

Doos: basically it is a boron silicate

Doos: not only for yours

gemma: ha.

gemma: let me pare it down.

Doos: that is a highly advanced topic

Doos: +an h somewhere

gemma: How can it be a separate species and still be tourmaline?

gemma: that is the real question. why would it not be a variety?

gemma: or still too complex for me/us right now?

Doos: I haven't read much about it, I think they found the chemical composition too much different to be called a tourmaline, yet so alike that it should fall under the

tourmalines

Doos: there are many tourmalines

gemma: ok. ars and i have talked a little about tourmalines

Doos: schoorl, albeite etc

gemma: i see it can be a lifetime of studies

gemma: so would i be safe to think of the liddicoatite as being a second cousin to tourmaline.

Doos: tourmaline is just a common name for a group, like garnet and jade

gemma: enough to be related and considered part of them but still with its own identity

gemma: right

gemma: oh.

gemma: dudh

Doos: I would say yes

gemma: tourmaline group, liddicoatite species?

gemma: like albeite, etc

Doos: yes, that is a good explanation

gemma: ok

gemma: i am happy with that for now. bet you are ready for a beer!

Doos: lol I am!

gemma: i appreciate your time. i see now why i drift toward FGA instead of GIA .

Doos: my brain hurts

gemma: well, you are at the end of the day, i am at the beginning
gemma: tanked up on caffeine
Doos: holdon, pit stop
gemma: ah, a universal idiom
Doos: this was an interesting study
gemma: go have a beer.
Doos: lol
gemma: bye
gemma: out the door.
Doos: bye for now
gemma: thanks so much. see you next sat.
Doos: glad that you were here
Doos: I'm going to log it now
gemma: ok.
gemma: i did too.