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The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

E. Y. Morrison
Rt.1 Box 24,
Pass Christian, Miss.

Preliminary Comments on Tazetta Narcissus and Kin.

If and when a newcomer arrives in the portion of the South usually designated as the Deep South, and finds growing in gardens, narcissus varieties that he has never seen before, and of types quite distinct from all the familiar forms, should he inquire as to their names, he will get practically nothing other than common names that cannot be traced to any recorded list with which he may be familiar. He will recognize that most belong either to the jonquil tribe or to the tazettas. Possibly the forms of the latter known as Paper White and its kin, sometimes Soliel d'Or will represent the tazettas and the campernelle or something like it, the jonquils.

Others have attempted to collect and name the sorts that can be found in the South, but even they have not been completely successful and if they traversed country farther north in the region than what is properly the Deep South, much of their findings is of no use at all, in our area.

Since the writer soon discovered that all the commercially available hybrids of jonquilla, triandrus and tazettas that he first tried were not only successful but permanent, he then undertook to assemble all he might, by purchase when they could be found in trade, by purchase through the various offerings in the various State Market Bulletins, and by gifts from old friends and new. As they flowered, he discovered an odd overlapping or non-agreement among the "local" names and many forms sent in with the same names, turned out to have enough of minor differences to warrant individual garden naming, if that were possible or desirable.

In this writing, only tazetta forms and hybrids will be discussed.

In this immediate area, on the Gulf Coast of Mississippi, the most common form of tazetta, in great quantity, turns out to be identifiable as N. tazetta italicus. Next most abundant, is the kind known to some in trade as Grand Monarque, a name that will be discussed later on. The third kind, known to northern gardeners for forcing use, as Paper White, is next most common, but when one comes to look at these plants from differing sources, he will find that not all are of the same quality as the kind most commonly used in the North, and that not all bloom at the same time, even relatively speaking. It is almost impossible to tell as yet, whether the next most common form in this area, is Soliel d'Or or the plant that was known in the writer's youth as Chinese Sacred Lily, both in its typical single form or in the double. In addition, there is a common kind, obviously not a true tazetta, that is everywhere, with its masses of small, starry yellow flowers. This turns out to be N. x intermedius, a fact determined by Mrs. George Watrous Jr. and confirmed by Mr. Alec Gray. It is a tazetta- jonquil hybrid of long standing, known in old literature and believed to be a natural hybrid.

Here one does not come upon old N. x biflorus, but it should be mentioned as it is a natural tazetta hybrid, and can be found in the State Market Bulletins, usually offered as May Narcissus. In this garden, it is not happy, as it appears to need more moisture in the soil, than can be maintained here, and the flowers blast as do the blooms of some poeticus farther north. Extra watering will sometimes bring on good bloom, but who wants to be compelled to water any narcissus? Even one with the romantic old name of Primrose Peerles?

In buying through State Market bulletins one must be prepared to accept bulbs that are not always graded in size, sometimes not even of blooming size, and frequently are not what the farm lady reported in her advertisement, something that usually is an accident rather than intent. One came in as an unnamed form, and one one bulb bloomed the first year. The second year, showed such fine flowers that an additional quantity was ordered, while the plants should have been in bloom in the garden of the owner, so she need make no mistake. Its name? No one knows and certainly not the writer.

Parenthetically it might be said, that State Market Bulletins whatever name they may bear, are essentially sheets of classified advertisements, sent in only by non-commercial persons, and offering farm products of one sort or another, as far as horticulture is concerned. They may usually be had by writing to the Department of Agriculture of the particular State one prefers. Not all are equally valuable.

With the possible exception of Mr. L. S. Hannibal, who has reported on these in the Yearbook of The American Daffodil Society no one seems to be in position to name names, and say what is what. Several members of the above mentioned Society are deeply interested and also collecting as is the writer who is indebted not only to Mr. Hannibal and Mrs. Watrous, but to Mrs. Kenneth Anderson, to Mrs. M.S. Anthes and Mrs. Richard Darden among others with Miss Elizabeth Lawrence joining in the fray! From Mr. Hannibal, Mrs. Anthes, and Mrs. Anderson, have come samples of yellows, that were ruined in flower in our frost of January 1962, and for which the writer must wait another year, as he must for the latest sample from Mrs. James F. Birchfield. Still earlier help came from Mrs. U. B. Evans and first of all, from Mrs. J.E. Zenor.

4-tazettas, etc.

✓ If one turns to books for help, the first impression one has is that confusion has been confounded, and ~~thoroughly~~ ^{during}. The period when tazettas were most in vogue, lies between the 17th and 18th centuries although there are records to show that they were known in cultivation in Europe much before that date, and historically well into what is jocularly called Ancient History. The only writer publishing in this country was A. M. Kirby, Daffodils, Doubleday Page and Co. 1914) but he attempted no botanical treatment being wiser than many. He has many notes, of value, however, that make one wish that his collections had been maintained for our times. Aside from the pleasure of looking through the old publications on tazettas with their often hand colored illustrations, one will save time to turn to Mr. E. A. Bowles, and his "A Handbook of Narcissus" first published (Martin Hopkinson Ltd, London) in 1934, and later reissued.

Books nor not, one may well recall Mr. Kirby's pertinent remarks "Being natives of a mild climate, the Tazettas cannot withstand the rigours of cold latitudes and are not to be depended upon as garden plants north of the freezing belt. The Hollanders have produced numerous beautiful hybrids, some of which are hardier than the typical southern forms and I have successfully grown many of the Dutch varieties in my garden in the vicinity of New York City. Yet, like Tea roses, while they may live through two or three winters, with careful protection, they eventually get killed by frost. They require the winter protection of a cold frame. * * * * *

All this is reasonable enough if one recalls that they are usually, bulbs that start growth with autumn rains continue through what we consider as winter, and our winters for the greater part of the country do not resemble those of southern Europe.

The man who wrestled last with the group, aiming to bring about some systematic order, was the late E. A. Bowles to whom gardeners owe so much in many fields related to bulbs and cormous plants. He, as any one knows, looked through all the earlier publications and discovered that some writers had had a poor concept of what would constitute a species, ignoring the natural variations that could easily occur and later be maintained in cultures. He examined the illustrations and found that they did not always give true pictures of the plants of such sorts as he knew from live materials, and he offers a list of such as he felt are correct in his book, A Handbook of ^{the} Narcissus first published in 1934, and later reissued.

He follows the classification given by J. G. Baker, in his Handbook of the Amaryllideae (1888).

Series I. Tazettinae bicolores, perianth white, corona yellow.

Series II. Tazettinae albae, perianth and corona, white.

Series III. Tazettinae lutea, perianth and corona both yellow.

To any gardener this must appear as a horticultural classification rather than a taxonomic, but it remains as useful as any other scheme that may be used by gardeners.

The first series is divided into two sections, a. and b., largely on the basis of the intensity of the yellow color in the cup, although other characters are mentioned in relation to size of bloom, vigor of plant growth, width of perianth segments and so on, all characteristics of garden interest but not necessarily of taxonomic value.

Section a., built up about N. Tazetta L. records also the long list of related forms and indicates the wide geographic range of its occurrence. This is clearly indicated if we read with care the sentence: "Naturally with such a range many local varieties occur, differing in size and shape from the narrow-cupped form with reflexing limb that is Herbert's N. corcyrensis, to N. elatus, Plate 70

Fig. A. of Bicknell's Flowering Plants of the Riviera with flowers over two inches in breadth and wide-open cups."

The list that follows, discussed with publication and figures is long and includes only two forms that have appeared and are still known in trade in American lists and gardens. One is the dwarf form known as canaliculatus which according to Bowles is not the true species of that name, and the bulbs imported from the Orient as The Grand Emperor, Water Fairy Flower, Sacred Chinese Lily and so on....., of which only the term Chinese Sacred Lily seems to have been or may still be current in this country. He notes that the bulbs so imported include with the single forms some doubles that he feels are less fine than those then known as Double Roman. He does not suggest that those from Italy might be the same, nor does he ^{long} suggest that those from Italy are native there, if ever. One can only suspect now, that the bulbs in Italy had once come from the

Orient, possibly via Constantinople, which is often mentioned in old books as a point of import.

No mention is made of the variety sold in this country as odoratus, a name "invented" by Mr. Alex Gray as "the authorities have never been able to give me a name." (Private correspondence) This form ~~name~~ as grown here is about the same in coloring as the Chinese Sacred Lily or little canaliculatus when this condescends to bloom. Odoratus blooms here after the Chinese form had finished and before the 'canaliculatus' which did bloom for the writer in 1962.

Another form that bloomed here, that Mr. Bowles could not have known, was sent me by Mr. Wyndham Hayward who found it in one of the grocery chain stores, neatly boxed and labelled "Gallilee Narcissus", grown in Israel but packed in boxes printed in the Netherlands. It made growth somewhat like that of canaliculatus, but taller and bore flowers of rather different form as may be seen in the illustration. Unfortunately most of the bulbs here, were infected with virus and will have to be destroyed if it reappears next season, as it presumably will.

The bulbs listed in Section b. of the kinds with colored cups are reported as of garden origin, that is, not known in Nature, and presumably "the result of crossing color with white, species or forms." The one thing that is not mentioned in the discussion is that the color in the cups of this section is not sun fast, and in many cases disappears entirely. This may not have been so in Europe or Britain, but certainly seems to be so in our brilliant sunlight.

Of those planted one year ago, most flowered superbly this spring and made lush foliage that should promise well. Early Splendour from another source, seems clear of virus and bloomed well. Matador, was the first to open, and is a fine thing with good color, though not as deep an orange in the cup, as one might guess from the description. Sparkling Eye, Orange Blossom, Orange Wonder, Mrs. Alfred Pearson, Pride of Holland, Canary Bird, and Laetitia(not registered?) all bloomed well, and of all, I should repeat purchases, omitting possibly Mrs. Alfred Pearson, unless I merely wanted masses for cutting. Aspasia, newly planted was in a slightly different, though not distant location and bloomed the last of all. The illustrations, for such as we managed to get, show enough to indicate that the flowers are varying in size, characters, colors, and numbers per scape. All have Canary Bird, and have periantha and calyxes in degrees of yellow to orange to deep orange in the cups. In none was there a clearly defined rim of color as in poeticus itself or some of the kinds once known as Barrii. The scents were varying and fine.

In the much used book of Bowles, he makes mention of the fact that the types of perfumes to be found among the tazettas, ~~many~~ vary and that in many cases, there is an after scent, which apparently he did not altogether enjoy. This does not seem to be true for my own observation and trials, but some visitors have insisted that they could not endure narcissus of this type on account of the scents which they found to be unpleasant. Not just too strong, but unpleasant. Bowles makes no particular reference to scents among the hybrids, but they are present, variable and to the writer, pleasant.

5031 Reno Road,
Washington, D.C.,
Sept. 15, 1962.

Dear Mr. Morrison,

You say pay no attention, but I can't resist adding a little more to the confusion. You need pay no attention to what I say (except that I think you will find Mrs. Anthes, Mrs. Anderson, and Mrs. Birchfield mentioned in your article - not on the same page with me but farther along. I do not remember now just where.)

The matter of conditions under which species set seed without hand-pollination (or with) is one I think we need to learn much more about, as a part of the whole question of seed production. It seems reasonable to assume that "species" are able to reproduce themselves by seeds, even though bulb division makes this less necessary for bulbous plants than for annuals, for instance. I believe this ability is often included in definitions of species. Until we know the exact requirements of a species for setting seed - temperature, humidity, special insect pollinators? - and so on, it is risky to say that one is incapable of setting seed, just because it has not done so for us, as Mr. Hannibal has learned. So I would not think the failure of *italicus* to set seed for you casts any serious doubts on its identity.

I was very glad to hear of the small bulb museum in Holland, and wish that Mr. de Graaff would write something about it or have someone do it. Will you suggest it to him if you are writing again?

I have not seen Mrs. Birchfield's small yellow tazetta and have only a vague recollection that I may have heard her mention it. Did she find it in a Virginia garden?

Tridymus: The 1948 RHS List gives "tridymus Burb." Just that. Jefferson-Brown gives "tridymus, Burg. equals ~~exhibitionensis~~ N. tazetta X an Ajax garden form." The RHS List gives "tridymus Hort. equals a form of *macleanii* Lindley." But under "*macleanii* Lindley" they give "equals poeticus L. x *pseudo-narcissus* L." Something wrong here. If *macleanii* Lindl. is supposed to be the same as *Diomedes*, Haw., Dean Herbert shows the equivalent of the latter in his plate of hybrid *Narcissi* in Edwards's Botanical Register, 1843, his plant raised from "N. Ajax minore...polline N. *Hermione aequilimbres*, *Melitensis*." If *macleanii* and *Diomedes* are not supposed to be the same, *tridymus* should not be given as "a form of *macleanii*." At any rate, I agree that reading *triandrus* into *tridymus* was an error. I contend that the modern British have a prejudice against tazettas, witness their unwillingness to consider Silver Chimes one.

I do not have the Calvert book, but have voluminous excerpts from the article by Engleheart from the RHS Jour., 1894. In this he lists seven crosses he had made "not only once, but in successive generations..." Also "Nearly all the crosses have been effected both ways." One of the seven is *N. tazetta* x *N. poeticus* = *N. biflorus*. Bowles says in his chapter on tazetta hybrids: "Intermediates between *N. tazetta* and *poeticus* fall into four classes: spontaneous crosses, such as *biflorus* and some allied forms; presumed crosses, of which Bazelman major, Cypri, etc., of Oriental origin are examples; the recorded crosses of recent years, such as those of Messrs. Van der Schoot raised in Holland; and still later races with a better form of *poeticus* as one parent raised in Cornwall by Mr. P. D. Williams." He refers back to p. 155 and 156 for discussion of the second class: "They have been dealt with among the *Tazettinae bicolores*, which

they resemble so closely."

I do not remember how this bears on your article, except that you mentioned biflorus rather early in it with a reference to the old name Primrose Peerless.

A letter from Mr. Hannibal has just come, in which he says he should write you but "just too many things doing the last three weeks." Hybrid Brunsvigias blooming, etc. So he does not seem to be mortally offended that you are writing on tazettas. Surely he cannot think he has a monopoly on them. I do think it is unfortunate that he did not do more checking before sending in that article, but I have not attempted to point out what seem to me questionable statements or inconsistencies. I think he has read a great deal, and observed a great deal, but jumps around too much sometimes in drawing conclusions. I gather he is of a rather effervescent temperament and writes too hastily. I thought you had managed pretty well to quote him without committing yourself ~~xx~~ too much as to whether you agreed with him.

As to Soleil d'Or, I incline to agree with Moggridge. If it is a hybrid, where did the deep color in the crown come from? Not from poeticus, according to chromosome count. Although Bowles does seem to include aureus with cupularis, the RHS List accepts both, on the authority of Baker, as does Fernandes. (I imagine he accepted them more as a matter of formality than as a result of new studies, as the differences between them seem so slight, and both are suspected to be of garden origin.) Neither accepts aperticorona Haw., which Mr. Hannibal used in his chart, but Baker did associate this with cupularis rather than aureus.

Compressa: I think the Heaths' stock undoubtedly came from Alec Gray; I have no idea about Mr. Hannibal's White Pearl. I suspect this is an old variety the Heaths picked up from old gardens; maybe it is the right one. I see I have made a probably unwarranted interpretation of the term "trade sources" - I tend to think of both Mr. Gray and the Heaths as "special" rather than "regular", knowing that they offer things not available elsewhere, and sometimes with names that cannot be documented. In the case of compressa I think I misinterpreted your use of the word "our."

"Farther south": here again I admit a personal interpretation. I think of Florida as a special case, not south in comparison with the Gulf Coast of Mississippi. I am not arguing (or don't mean to) - just giving examples of how a reader sometimes sees things differently from a writer.

You suggested that I write something about old groups that have disappeared. I do hope some day to write about these, and about some of the old plates in books I became acquainted with while doing some work for Miss Warner, but right now I have my hands full with the B and S committee and the miniatures. I have no illusions that I am an authority on breeding, but I do have time to give to committee work and at this stage - with so many beginners - it seems worth while to try to make their efforts amount to more by encouraging them to keep better records, compare notes, try something different, and so on. I do expect to write a longish article on Division VII next year, one of a series proposed for the ADS Yearbook by Mr. George Lee.

Sincerely,

Roberta C. Watrous

With the possible exception of Mr. L.S. Hannibal, who has concerned himself with all these for years and has reported on them in the 1962 Yearbook of the American Daffodil Society, no one seems ^{to} ^{be} in position to name names, and say what is what. Several members of the above named Society are deeply interested and also collecting, as is the writer.

If one turns to ^{old} books for help, the first impression is that confusion will be confounded. The period when the Tazetta Narcissus were most in vogue lies ^{during?} between the 17th and 18th Centuries although records show that they were known in Europe long before that time. Since they are essentially winter-growing, they were not truly ^{either} successful out of doors in Great Britain, save in Cornwall and the ^{Islands}, or ~~on~~ the Continent, where the main interest seems to have centered in the bulb growing regions of the Netherlands rather than in southern Europe where some appear to be either native or well established foreigners, in France, the Spanish peninsula and Italy.

Writing in 1914 Mr. A. M. Kirby reported on a large collection of species and clones as well as on many hybrids that he had grown in his garden near New York City, and named a much longer list of species, clones or kinds (CVS.) of which he knew only catalogue reports. He did not give any real taxonomic treatment, and some of his synonymy is open to doubt.

For the American gardener the most pertinent paragraph in his text concerning the tazettas and allies, is:

"Being natives of a mild climate, the Tazettas cannot withstand the rigours of cold latitudes and are not to be depended upon as garden plants north of the freezing belt. The Hollanders have produced numerous beautiful hybrids, some of which are hardier than the typical southern forms and I have successfully grown many of the Dutch varieties in my garden in the vicinity of New York City. Yet, like Tea Roses, while they may live through two or three winters, with careful protection, they eventually get killed by frost. They require the winter protection of a cold frame. * * * * *" pages 183-184

The man who wrestled last with the group, aiming to bring about some systematic order, was the late E. A. Bowles, to whom gardeners owe so much in so many fields related to Bulbs and cornous plants. He, as any one knows, looked through all the earlier publications and discovered that some writers had had a poor concept of what would constitute a species, ingoring natural variations, that could easily occur and later on be maintained as garden cultures. He examined the illustrations widely and found that they did not always ~~mean~~ give true pictures of the plants of such sorts as he knew as living materials, and he offers a list of such as he feels correct in his book, ^Athe Handbook of ^{the}Narcissus, first published in 1934 and later reissued without much change.

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with
book

He follows the classification given by J. G. Baker in his Handbook of the Amaryllideae (1888).

Series I. Tazettinae bicolors, perianth white, corona yellow.

Series II. T. albae, perianth and corona ^{both} white.

Series III. T. lutea, perianth and corona both yellow.

To any gardeners this may appear as a horticultural classification rather than a taxonomic, but it remains as useful as any other scheme that may be used by gardeners.

a and b
or
a. and b.

The First Series is divided into two sections, a. and b., largely on the basis of the intensity of the yellow color in the cup or corona, although other characters are mentioned ~~in~~ in relation to size of bloom, ~~vigor~~ of plant growth, width of perianth segments and so on, all characteristics of garden interest but not necessarily of taxonomic interest or value.

Section a of the first series, built up about N. Tazetta L., records also, a long list of ^e related forms and indicates ^{the} that wide geographic range of its occurrence. This is clearly understood if one reads the following sentence: "Naturally with such a range many local varieties occur, differing in size and shape from the harrow-cupped form with reflexing limb that is Herbert's N. corecyrensis to N. elatus of Plate 70 Fig A. in Bicknell's ^e Flowering Plants of the Riviera with flowers over 2 inches in breadth and wide-open cups."

The list that follows, discussed with publications and figures, is long and includes only two forms that have appeared and are still found in American lists and cultivation. One is the dwarf form known in trade as canaliculatus which Bowles points out is not the true canaliculatus of ^{Jussieu's}, and the bulbs imported from the Orient as The Grand Emperor, Water Fairy Flower, Chinese Sacred Lily, and so on..... of which only the term/Chinese Lily seems to have been or may still be current in this country. He ^{note} some that bulbs so imported include with the single forms, /doubles that he feels are less fine than those then known in trade as Double Roman. He does not suggest that the form ^{is here} ~~elsewhere~~ reported as coming from Italy might have been the same, ^{nor} that those from Italy were long native ^{here} or if ever. One can only suspect that the bulbs in Italy might have come once long ago from the Orient, possibly via Constantinople, which is often mentioned in old books as a point of export, certainly of commerce.

The CV. known and available in this country as Odoratus, is not mentioned in this book, not even as a synonym. To the writer's eye, it belongs here, but that is mentioned only and not recorded as fact!

Insert here →

87
Mr. Wyndham Hayward, knowing of my interest in tazettas, sent me in late autumn or early winter, some bulbs he had found in one of the (food) chain stores, mainly devoted to foods, boxed neatly, and labeled "Gallilee Narcissus", grown in Israel but (apparently in packages) printed in the Netherlands. ^{These bulbs} It made growth somewhat like that of canaliculatus but somewhat taller, and has flowers of different form as may be seen in the illustration. ^{had} Unfortunately most of the bulbs here were infected with virus, or appeared to be. If this reappears in 1963, all will have to be destroyed.

In writing of this same section, although the terms were not identical, Kirby(l.c.) lists thirteen he has grown and some twenty-three he knows of from European Lists. He does not divide this total into two sections with the deeper and the paler cups, as does Bowles.

Bowles in listing cvs of Section b., i.e. those with paler cups, considers that all are of garden origin, that is, not known in nature, and presumably are "the result of crossing color with white species or forms." This may or may not be sound reasoning. The one particular thing noted in this garden, and not mentioned ^{by} ~~here~~, ⁱⁿ Bowles, is that the pale yellows of the cups in this section are not sun-fast and in many cases disappear entirely. This may not have been ^{noticed} ~~so~~ in Europe or Great Britain, but certainly seems to be so in our own brilliant sunshine. ^{by?} ^{noticeable?} The most likely that Bowles came to it, appears in his discussion of N. T. italicus, which will be discussed ~~when~~ with others of the last Series.

Although some of the earlier authors treated the members of this group as species, Bowles does not recognize them as such. We come almost at once ^{to} 'Grand Primo Citroniere' which is reported as grown in Guernsey, Scilly and elsewhere for market, and " * * * * " is sold under the shortened name of "Primo." The early workers confused this with Grand Monarque, and that is a confusion that we find in this country as well. As far as the writer's personal observations record, the differences between the two, as grown here, shows most clearly in the earlier ^e flowering of Primo, its more complete fading of cup to white, ^{and} the larger and more vigorous leaves, while Grand Monarque as grown here is always late, always deeper colored on opening, ^{and} never fading completely, and with much narrower leaves. (In ordering far and wide)

7- draft only

Insert new sentence
this last in the clone or cv, that seems to have been most widely distributed in this country, in the South. The clone, compressa, which I believe Mr. Hannibal feels should be the taxonomic name for this "horde or swarm" of garden forms, is almost identical with what the writer grows as Grand Monarque, but is larger in all its parts, and grows more vigorously. In 1962 it was earlier than Grand Monarque, but as it was newly planted the date should be mentioned only. Whether or not it will maintain its larger size and growth habit after some years on the sandy soils of this region, remains to be seen. Bowles mentions compressa (page 161) but apparently in a form differing from ours, in that it has a "reflexing perianth" which ours does not. On the other hand, compressa from a commercial source, is somewhat closer to what we have from southern gardens than the compressa from California. There is in the collection here, from a Market Bulletin source in South Carolina, a fine tazetta, that blooms late, but is more deeply colored in the cup, than the common Grand Monarque, and yet appears not to fade in the sun, which our Grand Monarque does to a limited extent. It is planted in an area with passing shade as is some of the Grand Monarque, and the latter only fades. Like this last, it has definitely dark green foliage, for here only Paper White and kin have foliage that is typically bluish green.

Mark - the - notes
The variety Scilly White, is placed by Bowles in Series I Section b with pale yellow cups, but the bulbs here, from England, cannot be considered as with colored cups for more than the morning of their opening. After that, the flower is white. The same may be true of the bulbs bought as White Pearl, but this is not the bulbs to be found in trade from Market Bulletins as Pearl, the latter being Grand Primo in each case known to the writer.

The illustrations herewith will show the characteristics of each of these clones or forms or whatever they should be called. Unfortunately there is no picture of the local form of Primo or of the local form of Pearl.

When one^e comes to consider the Section II, of flowers entirely white, the kinds in trade in this country are extremely few. Paper White is well known but if one buys it from various sources, the resulting plants will not be identical, in form or style, although all will be the same splendid white and have the same definite scent.

As yet no one ~~mammamam~~ known to the writer has made any effort to explore fully all the possible forms or species here. In this garden, Narcissus dubius has flowered but once, the first year down, but has made excellent foliage for growing on and after the frosting of summer of 1962, one hopes has made flower buds for the coming season. N. Brousonetti is a species that makes very early leaf growth, sometimes injured by autumn frosts. In the 1961-62 season, there was only one plant that made any attempt to flower, and, in the writer's opinion, it was not Brousonetti, as the cup was not minute or rudimentary though the anthers did protrude markedly. The foliage was seriously damaged in the mid-January freeze. Stock of ^{N.} Pannizzianus has now died out ~~and~~ and is not much mourned as the flowers had no particular merit save that they appeared very early, ahead of Paper White and kin. Usually it has flowered here in late October, but reports have been sent to the writer of even earlier flowering farther north. The loss of the bulbs is the writer's fault as the plant is perfectly hardy here and needed attention, moving and feeding. Among the miscellaneous whites that came in through the U.S. Department of Agriculture, after Dr. Meyer's trip to Southern Europe, the only

individual that bloomed with real interest to the writer was the form known as Barlae. This has small flowers of very perfect form, style and substance. The first season the scape was in scale with the flowering, but in the second year, the scapes grew to normal heights and the flowers then looked too small, and so out of scale and less lovely.

At this writing, Series III, flowers entirely yellow cannot have a complete write-up. The freeze of mid-January 1962 ruined all the flowering of the bulbs newly planted and left only a few poor scapes of the only too familiar but none the less fine, Soleil d'Or. A few blooms were rescued from the clones, known as Bathurst, sent the writer from Mrs. Anderson who has been using it in her hybridizing. It certainly belongs here but seems a lesser beauty than Soleil d'Or. Mr. Hannibal's lutea ^(or aurea) which was even less advanced, was completely ruined and to flowering. All of these and several samples from Mrs. Anthes and Mrs. Birchfield are part of the expectation for 1963.

Hybrids

It will be recalled that the first kinds to appear came from the Dutch firm of Mes^{rs}. van der Schoot, and that the seed parent is known to be N. poeticornatus. They are therefore not chance seedlings, but man-made crosses. Doubtless the makers dreamed of getting plants that would resemble the tazettas but would be less inclined to winter growing and damage; in this they succeeded. Mr. Bowles in mentioning first that the progeny of these crossings were large flowered individuals with few blooms per scape presumably did not intend to pass over the fact that the balance of the seedlings were smaller flowered and many per scape, as in the tazetta parents.

7
he uses
both names
in article

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If one reads through ^{the} ~~the~~ lists of Class 8 varieties as recorded in the last edition of the Classified List and International Register of Daffodil Names (Feb. 1961) issued by the Royal Horticultural Society, he will find that there are about one hundred and three sorts of what we are now considering, omitting such presumptive kinds as ~~Soliel d'Or~~ and adding the doubles arbitrarily classified in Class 4 with all other doubles, since these are double tazettas in fact. The dates of registration are not necessarily dates of origination, but will serve as well as any other to show the firm of R. van der Schoot and Son, was not the only firm or person bringing on crosses of this type. Their total, beginning with Elvira in 1904 and including the later work of the sons, comes to about twenty-three sorts, not all apparently now in commerce, certainly not in commerce in this country. An astonishing number of familiar names of originators appear in this list and more that are not well known in this country, ^{inc} including some from Australia and New Zealand, of whose work we should like to know more.

From ^{such} ~~all~~ parentages reported in the common press, it would appear that in most if not all instances, the seed parent was a poeticus variety. For ^{breeders} gardeners who live where the poeticus kinds do well, this may present a problem as the true tazettas usually do not do well in such places, and vice versa. Shipment of pollen by mail could easily be arranged if need arose, as storage of narcissus pollen is no great problem with a good dessicator. The one factor would be to know surely which tazetta/ pollens were of value. Here again, Mr. Hannibal reports, for such as he had, in the Yearbook already mentioned.

Part on breeding here?
No

The Classified list records hybrids from this country only from the late Edwin Powell^{C.}(1) and from Oregon Bulb Farms (3) and these ^{last} registered in 1958. The field seems wide open. As compared to the long lists of tazettas in the Kirby opus, his lists of poetaz varieties is definitely short both for those he had grown and such as he reported. The one most interesting bit of information for the writer is his reporting of Mrs. Alfred Pearson as a tridymus hybrid, a group of crosses that has disappeared into Class 8, which makes no distinction as to the parental combinations save that there should be one tazetta involved. First thought appeared to suggest that the tazetta had to be the seed parent, but that is obviously not correct, if reporting of poeticus ^{as} ~~suave~~ parents is correct!

The kinds that have been longest in this garden are: Laurens Koester, Cragford, Halvose, Helios, St. Agnes, Geranium, Martha Washington, Admiration and Cheffulness, both white and yellow. This last is always a failure, as we cannot succeed, or do not succeed with any double narcissus here. The flowers if they develop are always green, for lack of adequate water presumably, in even supply. All have done well, although now they are in great need of lifting, dividing and feeding. Of the lot, Cragford the earliest, and St. Agnes the latest have been the most delightful here.

Of the more recently planted kinds, it is difficult to make a just report. Early Splendour flowered well the first season, but almost not at all the second, and the stock seems to be infected with virus. L'Innocence ^S appear to be in the same category and the same condition, though the blooming times are not identical.

Largely because of its appearance, it has been usual to make⁷ mention of the C_{lass} 5 Triandrus - tazetta hybrid, Silver Chimes, whenever the tazettas are discussed. Let it be recorded here that this is a most successful variety and has been growing well, increasing slowly, in a planting that could be written off as⁸ a naturalized group, for some years. In a new planting, it bloomed later in the season, but equally well.

If there are faults among these fine plants, one must look sharply. It may be argued that the whites of the perianths are not all as shining as those in Paper White/itself, but the same argument holds for many of the large-flowered garden kinds in ~~other~~ Classes. If one were to grow them for showing, one would have to know if the "judges" knew about tazettas at all, before entering; to judge a tazetta against any other type is to work a hardship. One could wish, if he were dreaming up an ideal, that the spathes were less conspicuous, the individual pedicels a little shorter and stronger, and that the plants, with their habit of blooming when early rains fall, and encourage over night growth at the base of the scapes, did not respond so immediately and often fall on their faces from the weak bases of the drunken scapes. But Spring is Spring, and the fallen will make fine material for cutting, if done at once, otherwise the flower faces will turn to the light and when the scape is gathered, will be facing in all sorts of comical directions.

In this Mississippi Gulf Coast garden, there are flowers of this type from Christmas through late April, ⁱⁿ the days when pannizzianus was here, earlier than Christmas. Not all survive happily farther south, and the records of plantings to the north are not yet complete nor always sound in judgment. Remember what Kirby wrote in 1914, already quoted.

9
 7/ farther
 than the
 Gulf Coast?

If and when a newcomer to the portion of the South known as the Deep South, goes looking for narcissus that may succeed, judging by what he may find in other gardens, he will see many that he has never seen before and of types that are markedly distinct from those he has long known. Many have no names as far as the local gardeners are concerned and few seem to be held in much esteem. He, himself, will realize that most are either members of the Tazetta Group or of the Jonquil Group.

The present writer has been growing such as he could find for some years and has discovered, as have others before him, that for this immediate area, the Deep South, and again within some limits, the only narcissus that can be planted for permanence, are members of the Jonquil, Tazetta and Triandrus groups, and such hybrids as are available. It is true that many other types of narcissus have grown well in the garden here, some immediately and some after years of adjustments, and it is not unlikely that if he were a younger and better gardener, he would derive ways of feeding them so that even the more difficult ^{would be} ~~were~~ less unhappy. The collection that concerns us is made up of all such types as indicated above, but in this writing only tazetta forms and hybrids will be discussed.

The most commonly encountered tazetta in this area, is the plant known as Narcissus Tazetta italicus. Next most abundant is the kind known in the South as Grand Monarque, but this will be discussed later on together with the many pseudonyms and nicknames that have been given it, all non-taxonomic. Next most common is the familiar Paper White, known to northern gardeners for forcing. If one buys widely here he will find that all the stock is not identical nor of equal

all stocks are

both ... and
or
either ...

quality or identical blooming seasons. It is almost impossible to tell as yet, whether Grand Soleil d'Or or the plant known in the writer's youth as Chinese Sacred Lily both in its typical or double forms, is the next most usual type seen. In addition, there is almost everywhere a common thing, obviously not a true tazetta, with masses of sherry yellow flowers. This turns out to be N. x intermedius, a fact determined by Mrs. Watrous and confirmed by Alice Gray. It is a tazetta-jonquil hybrid of long standing, known in old literature and believed to be a natural hybrid.

In this area, one does not find the old N. x biflorus, but it belongs here as a tazetta hybrid and can be found through the State Market Bulletins, usually offered as May Narcissus. ^{It} is not happy in the garden here, as it needs more water in the soil than we can maintain, and the flowers usually blast as do some of the poeticus in the North. Extra watering will sometimes bring on good bloom, but who wants to be compelled to water any narcissus, even one once known as Primrose Peerless?

slize bringing
in red name
this way!

In buying through State Market Bulletins, one must be prepared to accept bulbs that are not always graded to size, sometimes are not even of blooming size, and frequently are not what the farm lady reported in her advertisement. One of the most charming tazettas in the collection here, came in as an unnamed form, and not one bulb bloomed the first year. The second year showed such fine flowers that an additional quantity was ordered, while the plants should have been in bloom in the garden of the owner, so she need make no mistake. Its name?

No one knows, certainly not the writer, nor the grower who reports that her mother planted it fully fifty to sixty years ago.

Rev. G. H. Engleheart: same reference as Peter R. Barr,
in Calvert. BUT a paper originally
read before the R.H.S. in 1894)
Hybrid Narcissus

In discussing seedlings of his own production in order to
verify their presumptive hybrid origins,

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***** As to *N. biflorus*, which has been by some
botanists been rightly assigned to *N. tazetta* x *N. poeticus*,
while by others it has been considered of doubtful origin,
it is curious that Herbert, in his "Amaryllidaceae" sees "no
reason to think it a hybrid production * * * " It is
undoubtedly intermediate between *tazetta* and *poeticus*,* as is
proved by flowers here on the table and raised in my garden
from the cross. You will observe that while one of my
seedlings varieties closely resembles the ordinary *biflorus* of
our gardens, others are almost identical with "*Muzart orientalis*"
"*Bazelman major*" and "*Bazelman minor*" three *Narcissi* commonly
classed with the *tazetta* or *polyanthus Narcissus*, but long
since suspected of the hybrid source to which they must now
be assigned. * * * * *

*The asterisk refers to a foot note in which Engelman tells
of a letter from Peter Barr, who found *N. biflorus*, in abundance
growing between wild *N. poeticus* and *Tazetta*. (Near Montpellier
and Quillan.)

EB. Nowhere in this paper did I find any suggestion that
poeticus was the seed parent. Nor is there any mention of
the fruiting of *tazetta*. BYM

Peta Inua, (Inua) 1928

Kanchara (N.B.) Peta Inua 1933

Lerra Nora (N. Zealand) Peta Inua 1933

Cragford J.D. Williams 1930

Glorious J.C. Williams 1923

Kingcraft 1915

Rubell. E. 1912

Digitized by Hunt Institute for Botanical Documentation

Priddy Cornwall 1933

St. Agnes 1926

St. Keyne 1927

Scarlet Gem 1910

Halim - 1949

Hood Osuna 1959

Pango 1949

Shrew 1950

Gray

Peter R. Barr: Species and Wild Forms of Narcissi
(In Daffodil Growing for Pleasure and Profit:
Albert F. Calvert; Dulau & Co.Ltd.London
1929)

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The Tazetta Narcissi or Bunch-flowered Daffodils are represented in gardens to-day principally by the many hybrids raised by Dutch growers. These of recent years have been greatly improved upon so that many of the old sorts of fifty years ago are no longer grown. A few of them however are still largely cultivated such as Grand Monarque, Gloriosus, Grand Primo and White Pearl. These Dutch raised hybrids are much hardier than the species, many of which without protection die off in winter. our A well known variety called "Scilly White" has been naturalized in the Scilly Isles and Cornwall for a great number of years but I have never been able to discover the origin of it. It is very distinct from the other hybrids once grown in Holland. Other forms of Narcissus Tazetta have also been found naturalized in Cornwall.

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The Tazetta Lutea series includes Italicus, Bertolonii, Aureus, and Cupularis with various allied forms all having a yellow perianth and corona. With the exception of Cupularis they are seldom seen nowadays. Italicus grows in the vicinity of Naples and has a pale lemon perianth and a sulphur-coloured corona. The late Mr. Alfred Tait, of Oporto, informed me that this species is common in old gardens in Portugal, especially in Monastery gardens. The ~~double~~ well known Double Roman Narcissus is said to be double form of this species. * * * * *

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The Tazetta group of Narcissi (also known as Polyanthus Narcissi) is a very important one, embracing many distinct forms and species and having a wide distribution ranging ~~from~~ however from East to West in a latitude from 30° to 40°, i.e. from the Canary Islands to Japan. Many species and forms were described by the early botanists, Clusius, Gerard, and Parkinson which are not seen to-day. Parkinson, in his Paradisus, in describing several varieties writes - "These Daffodils have been brought unto us from divers places and grow naturally in many places in Spain that are open to the sea; they grow likewise about Montpellier and those parts of France. They have been likewise sent among many other sorts of Daffodils from Constantinople and grow plentifully in Italy from about Pisa in Tuscany from whence we have had plants to furnish our gardens." * * * * *

8 - Abundance = Helios -

Admiration - v. War - 1913

Albany - Fayliuk 1932

Albee - v. d. Sch. 1907

Angie - Gray 1948

Anne-Brita de Graaff - 1943

Asfasia v. d. Sch. - 1910

Asquith = Mrs Asquith

Avalanche (undermined) in Mrs Harrison-Smith # 1955

Bella Donna (v. d. Sch.) 1931

Betha (Welsh) 1926

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Bouquet Innoce v. War. 1916

Canary Bird, Berghuis H. 1959 Jan. - Feb.

Caruso = Richard Fauber

Chimera Chap. 1922

Cloth of Gold - C. Smith 1907

Cragford P. D. Will - 1930

cyclotay - Aw Tait 1923

Dorothea Gertrude (?) Nicolson Jg 1949

Dulcetta (Golmstone) 1945

Duplex (Dutch) n.d.

Earl Perfection (v. d. Sch. R A) 1930

" Splendor (v. d. Sch. AC) 1938

Elvira (v. d. Sch. R) 1904

Excelsior (v. d. Sch. R) 1931

20

Fame (Oregon B. Farm) 1958
 G. H. Engleheart (?) 1890
 Garden Beauty (v. d. Sch. R) 1931
 Garden Jewel (v. d. Sch. AC) 1938
 Geranium (v. d. Sch. JB) 1938
 Gift (Will PD) Doornen Enthe 1931
 Glorioso — ?
 Glorioso (Will JE) 1923
 Old Elze (Dutch) n.d.
 Golden Dawn (Oregon B. F.) 1958
 Golden Excelsior (Vis) Valkering & Sme 1942
 Grand Monarque (Dutch)
 " Prince Citronine (Dutch)
 " Soleil d'Or (French)
 Green Goddess (James, E) Phillips, P. 1949
 Greenleaf (Abaneth, J. J.) Abaneth, R. J. 1960
 Halcyon (Gray Allen) 1949
 Halose (Will PD) 1927
 Helios (Dutch origin) n.d.
 Hiawassae (Powell) 1943, 1956
 Hors d'Oeuvre (Gray Allen) 1959
 Ideal (v. d. Sch. R) 1907
 Impressive (Vis) Valkering & Sme 1942
 Jemelin (~~de Graaf~~) v. d. Sch. Ed) 1936
 Jaune à Merveille (v. d. Sch. R) 1907

James Supreme (-) n.d.
 Jan (Celtirk H) 1927
 Kamsara (N. origin) Lower P, 1933 ✓
 Killara (Celtirk H) 1914
 Kingcraft (W. Hill P.D.) 1915
 Klondyke (v. d. Sch. R.) 1907
 La Fiancée (?) War. 1937
 Laurens Koster (Vis) 1923
 L'Immaculée (Frylink) 1930
 L'Innocence (alk. made C.P.) v. Zon. 1930
 Lucrece (v. War.) 1916

Digitized by ~~Max J. J. J.~~ ^{Hort} Institute for Botanical Documentation

~~Max J. J. J.~~ (Dutch) 1910

Mannequin (v. d. Sch. AC) 1939

X Market Favorite (Stevens & Son) 1930

X Maroon (Leitch) 1960 ^{near the Harley on Frylink 1918} New Zealand

Matador (Oregon B.F.) 1958

Medusa (Hill P.D.) 1907

Mignon (van War) 1916

Misdequith (Vis) 1923

¹⁹¹⁵
Mrs A. Piersen (de Hoff) 1923

Mon Jézar (?) 2 and. Fer. 1938

(Mont Conis Dutch n.d.)

X Nion (Prins, H) 1929

Orange Blossom (Dutch) 1913

Orange Cup (Jamp B.W.) 1913

Orange Prince (Dutch) 1907

24

25

Orange Haze (v.d. Sch R) 1931

Orange Wonder (v.d. Sch R) 1931

Owl (Cape.) Turner & H. 1936

Pango (Gray, dec) 1949

Paper White Sunflakes. Bred 1895

Peacocks (Back, Mus) 1927

Peter Lora (Lora) 1928

X Pleiades (Ratcliff) 1934

Pride of Cornwall (Will PD) 1933

Pride of Holland (v.d. Sch R) 1931

Princess Ingrid (Vis) 1936

Digitized by Hunt Institute for Botanical Documentation

Princess of Holland (v.d. Sch R) 1931

Red Guards (Back, Mus) 1923

Rev. C. Woolley - Dod (Willmott Mus E) 1900

Rubellitz (Will JC) 1912

Richard Tauber (Vis)

Vackering & Sons 1942

S. A. de Graaff 1889

St. Agnes (Will PD) 1926

St. Keyne (Will PD) 1927

Scarlet Gem (Will PD) 1910

Shrew (Gray, dec) 1950

Silver Wings (Futton & Sons Ltd) 1938

Sunflakes (Frach) ~~1927~~

Sparkly Eyes (v.d. Sch R) 1931

Sunset (-) n.d.

- Terra Nova (N.G.V.) Lower Peter 1933
 Triumph (v.d. Sch R) 1910
 X Judea Rose (Cobley Mrs RS) Cobley 1937
 White Giant (v.d. Sch R) 1931
 X White Hybrid (?) v. Zon 1930
 Xenophon (Mrs Back) 1914
 Xerxes (Mrs Back) 1907
 X Yellow Favorite (?) Valkering & Sons 1942

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14
 24
 24
 21
 8

 101

V. der Schoot -

Elora 1914

Alsace 1907

Aspasie 1910

Cheerfulness 1923

Jasmine's Mercutio 1907

Wendyke 1907

Triumph (v.d. Sch. 2) 1910

Immelin 1930

Earl Perfectum 1930

Kella Donna 1931

Earl Splendor 1938

Geranium 1930

Epilobium 1931

Pack Beauty 1931

Orange Star 1931

Orange Wonder 1931

Pack Jewel 1938

Princen 7 Holland 1938

Mamequin 1939

Pride 7 Holland 1931

Sparkly Eye 1931

White Giant 1931

van der Schoot, P.A.
1923

(4)
Yellow Cheerfulness spat for Cheerfulness 1938
doubles - not together!
(4)

1830 -

R van der Schoot + Van - followed in 1917 by

Anthony C. v.d. Sch. Hld - Hilleman.

John B. v.d. Sch. Hld
Hilleman.

+ R.A. v.d. Sch. Hld -
Hilleman Hilleman

P.D. ← Williams → J.C.

Lactuca
Canary bird

Medusa 1907
Scully Gen 1910
Kingsfr 1915

Rubellitz 1912

Glorious 1923

St Agnes 1926
St Keyne 1927
Halose 1927

Craft 1930

1931

Pride of Cornwall 1933

Orange Cup (Crested Bird) 1913

Bouquet Enorme (van War.) 1916

Suave (van War.) 1916

Kingdom (v. War.) 1916

Killars (Selkirk H) 1914

Mrs Backhouse Xenos 1907

Xenopium 1914

Fame 1958

Golden Dawn 1958

Matador 1958

Wright Farmers
Oregon