

II. *A Journal of a Voyage from England to Constantinople, made in the Year 1668. by T. Smith D. D. & F. R. S.*

ON Monday Evening August the 3d, 1668. we took Barge at *Tower-Wharf*, and at *Greenwich* went on Board the *Bezant* Yacht for the *Downs*, where we arrived the next Day in the Afternoon, and went on Board the *Leopard* Frigate, a Ship of 56 Guns mounted, Captain *O Bryen* Commander, appointed to carry Sir *Daniel Harvey*, his Majesty's Ambassador to the Port of the *Ottoman* Emperor at *Constantinople*. Here, upon his first Arrival, the Ambassador was Complemented by Sir *Jeremy Smith*, then riding Admiral, Sir *Edward Spragg*, and several other Commanders of the Men of War, and afterwards Saluted with Fifteen Pieces of Ordnance by the Admiral, to whom we returned as many; then by the Vice-Admiral, and several other Ships. All which were answered together at the same time with 21 in the whole.

Here we were forced to ride for several days, the Winds being contrary.

[*An Account of the Tides here, taken from this Journal, is already printed N. 154. p. 564. of these Transactions.*]

August 9. We failed from the *Downs*, but were soon forced back by distress of Weather, and came to an Anchor *S. W.* of the *South Foreland*.

10. The Wind blew at *S. S. W.* and the Sea run very high, so that we were in danger of losing our Cable
 V v v v and

and Anchor ; the Ground, where we rode, at 16 Fathom $\frac{1}{2}$ water, being somewhat gruff.

15. The Wind coming about at *W. N. W.* we failed, and were Saluted with Nine Guns from *Dover* Castle, and Seven from one Fort, and Five from another. We carried a Flag upon our Main-top, after we came out of the *Downs*. The Wind in the Afternoon at *N. E.* brought us by Seven of the Clock to the *Nefs*, where we lay at Anchor during the Tide of Flood: during which time the Mariners caught good store of *Whitings*, baiting their Hooks with raw Mutton.

16. We were in the Morning athwart *St. Helen's* Point in the *Isle of Wight* ; where we discovered *Sir Thomas Allen* with his Squadron under sail, bound for the *Straits*.

17. In the Morning we got to the West of *Portland*, the Wind at *N.* by *E.* our Course lying thereupon *S. S. W.* but about Noon, sailing over part of the Race of *Portland*, where we met with a tumbling Sea, we Anchored at the *N. W.* part in the Bay, over against the Point that looks towards *Weymouth*. We were ashore in the Island, which seems to be but one continued Rock ; the Soil in several places not being above five or six Inches deep, as I found by digging a hole with my Knife : yet the Corn flourishing enough. The Castle consists of a double Fortification ; we could not observe above five Guns mounted. They told us, that in the Island there was but one Church, and four Villages.

We weighed at twelve of the Clock at Night : But

18. The Wind blowing fiercely at *W.* directly in our teeth, we made but little way, and could not weather the *Start* Point that Night. The Moon upon its first emerging above the Horizon, seemed to have a colour like burnt Brick, the Sky very cloudy : but some Rain falling, as she advanced higher and higher, she appeared more and more fiery.

19. We

19. We weathered the *Start Point* by Noon, but could not make much way beyond it.

20. We got into *Plymouth Sound*. The Cittadel, built upon a Rock, with large Counterscarps and Bastions, returned our Salute with nine Guns. Sir *Thomas Allen* with his Fleet stood to the *Lizard*, and came not to an Anchor.

21. Misty weather. About eleven Clock Forenoon, and about six in the Evening, we observed the Vapours in great quantity ascend out of the Sea, soon covering the tops of the Mountains. Here we staid three days, taking in some Provisions, ready prepared for us.

On Sunday the 23th of *August* we weighed out of *Plymouth Sound*, and made the *Lizard*, a Promontory in *Cornwall*, before Night: the *Manacles*, several Rocks so called, we discerned very distinctly, it being then low Ebb; as also the Lands end. The Wind blew fresh; and we observed the Waves in the Night time, as if they had been liquid fire, but palish.

The *Lizard* bearing *N.* of us, we changed our Course, and taking leave of *England*, we sailed into the Ocean. God of his Mercy send us a happy Voyage.

24. We run this day thirty nine Leagues by a Compute from our Log-line.

25. We were full open with the *Bay of Biscay*. Several *Gulls* were hovering over the Surface of the Water to catch Fish, which swam by in vast shoals, at above fifty Leagues distance from any Land.

At other times I have seen several Birds floating upon the Water, which being driven by some Tempest from the Coasts of *Spain* and *Portugal*, have been tired in their flight, and so drowned. This happens frequently in the great Ocean, where they meet with no Land to fly to in several hundreds of Leagues: and sometimes even in the *Mediterranean*, in the Mid-Seas

between the *Christian* and *Barbary* shores. In blowing weather, among other Birds flying cross, we saw a Hawk making to our Ship, then under good and swift Sail, which perched upon the round top of the Main-mast; which one of the Seamen espying, he presently run up the Shrouds, and brought down the Hawk, which made no attempt to fly away, being quite spent. But not long after, the Hawk recovering his spirits by rest and meat which was given him, took wing and got away from the Fellow, notwithstanding all the care he took to secure his new Adventure, which he hoped to have made Money of at the next Port that we should come to.

26. A strong Levant still blowing, and the Sea very rough and boisterous, the Gale continuing almost right a Stern, we run these 24 hours above 70 Leagues.

27. We found our selves by our observations, that we were in the Latitude of 42 degrees 17 minutes, and began to be very sensible of our nearer approach to the South, the weather being excessive hot. In the Afternoon we heard the report of several Guns fired at about seven or eight Leagues distance, as we guessed. At eight of the Clock at Night another Gun was fired somewhat near us, which we thought might be from an *Algerine* Man of War, who gave a signal to his Consorts, and who answered by several flashes of Powder. Whereupon our Trumpeters sounded a Point of War, but no return was made. However, the Captain quartered his Men, and the Decks were cleared, and all things made ready in order to a fight the next Morning; as soon as day appeared, we saw the Sea clear, no Ships being in view any way: so that we concluded that they were Merchant Ships, with their Convoy, standing to the Northward.

28. Dreadful Lightnings in the Clouds towards the Evening ; after which great Dews fell : the weather extream hot.

29. We saw a Pilot fish swim by the sides of the Ship, and several Bonito's and Albicores playing , as it were , with their Heads above water. The Wind took us short in the Night, and soon after there was a stark Calm ; and we had great reason to bless God for it : For had we continued our Course that Night, we had either run a ground, or had been cast upon the Rocks near to *Peniche* in *Portugal*. The fault was mis-reckoning, and haling in too soon to make the *Southern Cape* : though the Seamen, to salve their Credit, and to excuse their Error, which had like to have proved so fatal to us, pretended that we were set in by a strong Current. God make us thankful for this great Deliverance.

30. This Morning we were surpris'd to see our selves within four or five Leagues of the shore , when we had thought that we had been above twenty. In the Afternoon, the Wind coming on fresh, we weathered the westernmost Isle of the *Barlings*. On the greatest of which, being, as we guess'd, above half a Mile in length, the *Portuguese* have built a Fort to hinder the *Barbary* Pirates from careening their Ships there , or taking in fresh water. The Land of it very high, and bore off us *S. E.* by *E.* By it lye several Rocks. The other Islands are distant about a League. I told five of them : the greatest of which last lye somewhere inward to the shore.

For two Nights together about this time (28 and 29) the Sky being very hazy, the Sun set in a colour as deep as blood, which was very astonishing. We were then in the Latitude of 40.

31. Betimes in the Morning we failed by the Rock of *Lisbon*, at some distance, which was scarce discernible by reason of the cloudiness of the Weather. Two *Turks* Men of War are now plying to the Windward of us; but dare not come up to speak with us, perceiving that we are only laden with Powder and Bullet.

September 1. In the Morning we made *Cape St. Vincent*. I went on shore with the Lieutenant and several others in our Pinnace, which we drove into one of the Coves; and were forced to climb up a Rock, the ascent of which was very dangerous and troublesome; and made more so by the Rays of the Sun, which were reflected with that vehemence, that the Heat was almost intollerable. Having gained the top, we were met by an Officer and some Soldiers, who had us into the Castle, the middlemost of the three, which are built along that Promontory for the Security of the Coasts, and entertained us with Wine, Grapes, and Marmalade. They told us, that a Squadron of *English* Men of War failed by the Day before. We here met with two Vessels belonging to *Dartmouth*, laden with Fish from *Newfoundland*, bound for *Allicant*. All along the Coasts, at the distance of about two or three Leagues, are several Watch-towers built to give notice of Pyrates.

Becalmed for the most part these two or three days.

5. In the Morning we weathered the Point of *Cadiz*, and came to an Anchor in the *Bay of Bulls*, about half a League from the great *Porgoe*; and in the Afternoon went on shore. We were entertained by the *English* Consul, and carried by him to view the Fortifications, which are esteemed to be as regular as any in *Christendom*; built in the same place where the Town had been attacked formerly by the *English*, under the Conduct of the Earl of *Essex* in the Reign of *Q. Elizabeth*. Plays are usually here, as in other parts of *Spain*, acted on a
Sunday.

Sunday. During the time of our stay, was represented the History of the Patience of *Job*, the Devil brought upon the Stage, tempting *Job's* Wife in a drolling way, which caused great Laughter and Merriment among the Spectators. At *Malaga*, as the Merchants told us, the *Sunday* before we arrived there, was acted the *Schism of England* in the time of King *Henry* the Eighth, whom the *Spaniards* will not yet forgive, for Divorcing himself from *Q. Catherine*, their Country-woman.

9. We sailed from *Cadiz*.

10. This Afternoon we were forced to Anchor, not far from *Cape Spartel* or *Sprat*, as the Seamen call it, not being able to weather the Point.

11. This day we came to an Anchor in *Tangier-Bay*, with Sir *Thomas Allen's* Squadron.

Tangier lyes within the Entrance into the *Strait* of the *Mediterranean*, in the Latitude of about 35°, 36'. It is situated in the bottom of a Bay, and is built on the side of the Hill, overlooking the Sea, encompassed with high Walls to the Land-ward, and commanded by a strong Castle. The Heats would be very troublesome but for the Sea-breezes which cool and fan the Air. In the Castle I met with a *Roman* Monument, erected to the Honour of *P. Belius*, a great Officer and Souldier in *Trajan's* time; who, among his other Titles, is there stiled, PPO. FIG. MAURITANIAE TINGITANA E: which since has been taken away, and presented to the Univerfity of *Oxon* by Sir *Hugh Cholmondley*, and now serves to adorn the *Area* about the *Theatre*.

The *English* have two Churches here, (though they only make use of one, the other being reserved against all Accidents) both of them very neat and convenient; though not to be compared with the Church of the *Portuguese*, retained still, according to the Articles of Agreement, when the King of *Portugal* made over the
Right

Right and Title, and gave the Possession of *Tangier* to the Crown of *England*, by the Canons Regulars, belonging to it, which is very stately, and adorned with rich Images, and supported by Marble Pillars. Toward one end of the *English* Church, just by the Vestuary, which had been formerly a *Turkish* Mosch, and afterward the Chappel of a Convent of *Dominicans*, is a Monumental Stone-Table in *Arabick* Characters, containing an account of the Houses, Lands, and other Revenues belonging to it, set up in the 743 year of the *Hegira*, that is, of Christ 1341. The Mole is in good forwardness, they having gained above 200 yards in the Sea, in order to the making of a good and safe Harbour for Ships to ride in, which lye open to Wind and Waves; the outward side to the Sea-ward somewhat sloping. The Garrison is in so good a posture of Defence, that they defie *Taffielta* and all his Forces. Here we met with great Civilities from Colonel *Norwood*, Deputy-Gouverneur, and the Gentlemen belonging to the Garrison. Sir *Harry Mildmay* and Mr. *Goodland*, two of King *Charles* the First his Judges, are here; but who have the Liberty of the Town. Now, at our being here, come in several *Moors* from *Arzilla*, and among the rest, the Father of one of *Gayland's* Wives, to get a Passage for *Algiers*.

Old *Tangier* lyes at some little distance, where they find very frequently in digging several pieces of *Roman* Coin. But for the above-mentioned, and the other Curiosities and Antiquities of *Tangier*, of which I forbear to make mention, from the imperfect and hasty Observations of two days, the greatest part of which being taken up by the Entertainment of our obliging Country-men, you may consult with great pleasure and satisfaction, a little Book called *The present State of Tangier*. written by a very ingenious Gentleman, and printed in the Year 1676.

[*An Account of a supposed Current into and out of the Mediterranean, taken from this Journal, is printed N. 158. p. 164. of these Transactions.*]

13. We weighed out of *Tangier* and turned into the *Strait*, though against the Wind. The distance between *Gibraltar Cape*, which gives name to the *Straits*, and is joyned to the Continent of *Spain* and *Seuta* a well-built and strongly fortified Town, lying under the Hill *Alybe*, called so by the *Greeks*, which the Seamen commonly call, as do some *Spanish* Writers, *Apes-hill*, from the great number of Apes which used formerly to haunt there, (at which places *Hercules* is feigned to have set up his Pillars) may be about six Leagues: though both Lands lying very high (for we saw the Clouds much below them) it does not appear in the middle of the Current, out of a tall Ship, scarce half so broad.

14. Little Wind stirring.

15. A great Mist all the Sea over, so that we could scarce see three lengths of the Ship, which began to vanish in the Afternoon; and then we descryed the *Cape of Malaga* at about four Leagues distance; and came to an Anchor that Night. The City lyes under a high Hill, and is the Seat of a Bishop, who is at this time a Natural Son of King *Philip* the Fourth, of the Order of *St. Dominic*. Here the Merchants told us, that it had not rained for seven Months together, except a day or two for an hour: and that the *Algerines*, who were then breaking with us, had not been able to have set a Fleet to Sea about two years before, if they had not been furnished with Masts from *England*; and that they were now in expectation of another Ship laden with the same, notwithstanding the Rupture, which was as good as began. I only make a query, Whether *Jews* or *English* Men were the Fraighters.

16. The next Morning the Governour immediately returned our Salute Gun for Gun : soon after we weighed from *Malaga* Road, the Weather very hot. Some Rain fell at Night, though very moderately. In the Evening, after we had sailed about eighteen Leagues, we were becalmed. The Sea being quiet, we saw a great number of *Tortoises* swimming above Water, several *Bottle-noses*, fish of about three yards long, and very thick, and Hawks flying over to the *Barbary* Coast. The Hills of *Granada* were seen plainly by us, though at a great distance.

The Wind coming Easterly, we kept at Sea, beating and plying to and again for these four days, scarce gaining sixteen Leagues of our way, and were forced to come to an Anchor in the *Bay of Adera*, where there is a strong Cittadel, about thirty four or thirty five Leagues from *Malaga*.

21. We passed by *Cape de Gata*: but the Levant wind still blowing, having continued almost in that Point for above two Months, as we computed from what they had told us at *Tangier*, we could make but little progress in our Voyage.

25. Between three and four of the Clock in the Morning the Tornado's began to blow, and the Wind violent for the time, with such continued Flashes of Lightning for several hours, as that the whole sky seemed to be on fire, intermixed with terrible Claps of Thunder, after which followed great showers of Rain.

26. The Wind still contrary, we desceyed *Cape St. Martin* at about fifteen Leagues distance. Tacking about and standing off to Seaward, next Morning 27. we found that we had lost about three Leagues of our way.

28. We were athwart *Orlando's Gap* within two Leagues of the Shore, *Cape St. Martin* bearing off us N. by W. The Wind now still; but a swelling Sea coming

coming from the Westward : which is usual before a Wind, which drives the Water before it.

On *Michaelmas-day* we were up with the Island *Ivica* or *Ivise*, as the Mariners call it, and the Wind blowing fair, we stood our Course; and the next day at Noon we made the *Island Majorca*, situate over against the Kingdom of *Valentia*, and came to an Anchor in the *Bay* of the City, being forced in hither for want of fresh Water. In the Afternoon the Boat was sent on shore; but the Vice-Roy would not give us Prattick, not bringing a Patent from *Malaga*.

Octob. 1. The Secretary was sent with the King's Pass to the Vice-Roy to demand Prattick, who presently summoned the Officers of the *Sanità*. After long Debates and Delays they consented, and came to the *Mole* to receive him. He went directly to the Governour to acquaint him, that we were ready to Salute the City with what number of Guns he pleased, if he would engage upon his Honour to give us as many. He replied, that he would give us three for five; and wondered, that we being but a single Ship, should make such a Demand. The Secretary told him, That we were to be treated as an Admiral, having a Flag on our Maintop; and that the Governour of *Malaga* had done it. To this he said, That *Majorca* was a Kingdom, that he was the King's Representative, and that by reason of the Miscarriage of his Predecessor, when Monsieur *de Beaufort*, the *French* Admiral, was there, he had received strict Orders from *Madrid* not to do the like. The Secretary replied, That we had an Ambassador on board, and had as strict Orders, and should answer as severely for the Breach of them. His last Answer was, That we might, with our Sails loose, keep before the Town, till we had furnished our selves with what we wanted. Upon receiving this Message, the Ambassador dispatched away one *Joseph*

Gabriel-Cortez, a *Spaniard*, but employed by the *English* Merchants trading to that Island, then on board our Ship, to acquaint him, That when we were ready to go away, we would loose our Sails, and not before. We landed within the *Mole*; the Walk upon it about four or five yards broad; at the Extremity of which is a very large and stately Gate, which leads into the City. We went into the great Church, somewhat wider than *Westminster-Abbey*, but darkish within: the Portal very magnificent, adorned with several Marble Statues in Niches one over another. The High Altar very plain and unadorned: but others extraordinary rich and glorious. Not far from the City are several Mills to grind their Olives, Oyl being the great Commodity of the Island.

2. The next Morning we weighed, without taking any kind of notice of the Town, sailing all along in sight of the Island, which presented us with a pleasing and delightful Prospect; the Valleys, lying under the Hills, fruitful of Wine and Corn. The whole Island is judged to be about sixty Leagues in Compass, and in length about fifteen: which we sailed from the Westermost Point, where lyes the Isle *Dragovera*, at a very little distance to the Eastermost, where there is built a small Fort. To the *S. S. E.* lye several little Islands, called the *Cabrer*as; between which and *Majorca* we steered.

3. We were athwart *Port Maon* in *Minorca*; a fine level Country, having but one Hill in it *N. W.* by *W.* as it bore off us. In the Evening the Wind very scant.

4. This day, as yesterday, excessive hot.

5. In the Afternoon we descryed the Main Land of *Provence*.

6. We

6. We were over-against the Islands *Hieres*, and the Highland of *Tboulon*.

7, 8. These two days becalmed ; and the Sea extraordinary smooth.

9. We were over-against the Westermost part of the *Alpes*, which we distinctly saw at about twenty Leagues distance, and appeared far higher than the Hills of *Granada*.

10. We sailed by *Final* and *Ventimiglia*.

12. We came in the Morning to an Anchor over-against the *Mole*, and not far from the Lantern in *Genoa*. Having obtained Prattick of the *Maestri della Sanità*, after a little demur about the Salute, the Senate being assembled, and some of them protesting upon their Honours, and ready to produce their Registers, that they never saluted the Ship wherein was an Ambassador of *France* or *Spain*, as not taking any notice of the Person, who did bear that Character, till they had first intimation, that the Ship was arrived in their Port by its saluting the Town. It was agreed that the Ship should Salute the Town with eleven Guns, which they were to answer, as they did, with an equal number : and after a little pause, they saluted the Ambassador with nineteen more, which was answered with as many. After this, the Duke and Senate sent the Master of the Ceremonies to wait upon the Ambassador : who going away, returned soon after with a Present of Calves, Fowl, Wine, Sweetmeats, &c. and acquainted his Lordship, that they had deputed six of their Gentlemen to Complement him, and wait upon him ; which Civility he thought fit to refuse, desiring to be *incognito*. But however, going ashore, he was welcomed by the *illustrissimi Signori*, the *Durazzo's*, two Brothers, the elder of which had been Ambassador for the Republick, in the Court of *England*, and the other at *Constantinople*, and by them carried

ried to see the *Villas* out of Town. The figure of *Genua* is Semicircular, beginning from the Lantern Westward, lying under an high Hill, upon the rising of which the several Houses, built of Marble, afford a very fine Prospect, and add much to the Beauty and Glory of the place. *Strada nuova* perchance is the most stately Street in the whole World. The new Church of the *Anunciata*, built by the *Lomellini*, where a thousand may go up the stairs abreast at the same time, for curious Painting, rich Altars, and exactness of Architecture incomparable. The *Duome* also and the Church of the *Theatins* very stately and curious. Other matters I purposely omit.

14. In the Evening we set Sail from *Genua*.

Becalmed for the most part these three days, though helped somewhat forward by the Breezes that blew off the shore after Sun-set.

18. In the Afternoon we made the Island *Gorgonia*, about nine Leagues from *Livorne*; a little round Island, with a Castle on the top.

19. In the Morning we came to an Anchor in *Livorne* Road, about a Mile from the Town: the Road large and secure, especially to the Northward. The Ambassador keeps on Board, the Governor refusing to Salute the Ship first, though he had formerly saluted the *French*; pretending that every Convoy might carry a Flag; and alledging that his Master, the Grand Duke, was as great and absolute, as the Republick of *Genua*: and that they had rather throw themselves upon the King of *England*, than do a thing which might prove of such an ill Consequence. Sir *John Finch*, his Majesty's Resident, together with Sir *Thomas Baines*, came from *Florence* to Complement the Ambassador, and immediately dispatched away a Courier to the Grand Duke about the Salute; who referred the whole Affair to the Governor: and he making

making a Protest that he was ready to pay all the Respect which was due to the Ambassador's Character and Quality, upon the fore-mentioned Pretensions, six days after our arrival, absolutely refused to Salute the Ship first.

Livorne is the great Magazine of Trade for the *Levant*, being a free Port: Merchants of all Countries residing here, *Armenians* especially, and *Jews*; which latter enjoy great Priviledges, without wearing any distinct Mark in their Hats or Habits, whereby they may be known. They are allowed the publick Exercise of their Religion: their Synagogue large and handsome. The Port inward has a *Mole* for the Dukes Gallies and other small Vessels to ride in: the Entrance of which is chained up every Night. Hard by is the Statue of Duke *Ferdinand* in Marble, raised upon an high Pedestal; under which are four Slaves in brass, in different Postures, very large, and above the ordinary proportion, but done with exquisite and admirable Art. Two Castles to the Seaward well fortified: the Town Walls very high, and the four Gates strongly guarded: below which is a Ditch of about fifteen or twenty yards over, and very deep. No Stranger is allowed to view the Works, nor Soldier permitted to come out of the Castles. About four thousand Slaves are there, as the Merchants told us, who are lockt up in the *Bagno* every Night. The *Piazza*, where the Merchants meet, is adorned with Marble Pillars, which sustain the Portico's: at the East end of which is the great Church, whose Roof appears very glorious, having several Circles richly gilded and painted with curious Figures.

The broad Street is paved between two and three yards on each side with Free-stone.

27. In the Afternoon we weighed out of *Livorne* Road, and sailed by the Islands *Gorgonia* and *Capraria*, seeing *Corfica* at a distance.

28. We lay beating at Sea all this day, the Wind being contrary.

29. This day we were forced back, the contrary Winds still continuing.

30. We weighed a second time, and sailed by three small Islands, *Capraria*, *Planasia*, and *Monte Christi*. We saw also *Gigio* and *Sanuti*, two other small Islands near the Main: but we made but little way, by reason of ill Weather for four or five days.

Novemb. 5. At Evening we saw the Eruptions of fire from *Stromboli*, which lies to the *NW.* of *Sicily*. Sometimes it flamed very bright light as a *Beacon*; at other times there appeared only a glorious kind of Light, like that of an ordinary Star when the Air is thick and hazy. They say that it flames most in rainy Weather.

6. In the Morning we were up within a League of it, and plainly perceived it to smoke. It is of a round figure, and, as we gathered, may be about three or four Miles in compass. It bore *W.* by *S.* of us. Not far from it lye scattered several other Islands, called by the Ancients *Æoliæ* and *Vulcaniæ*: among which are *Lipara*, a long flattish Island, and *Vulcanello*, which smokes most. This Afternoon we came to an Anchor in eight Fathom Water in the *Phare* of *Messina*, in the mid Stream between *Scylla* and *Charybdis*: a violent and strong Current setting against us, and the Wind not high enough, so as to be able to stemm it. The breadth of the *Strait* from *Messina* to *Rhegium* may be about a League. The Land is very high on the *Calabrian* side, where are very steep Rocks, and great depth of Water, above 150 Fathom, as they told us: but on the *Sicilian* side, near *Charybdis* Shole-water, and usually an Eddy. On the Sandy Banks
stands

stands the Phare or Watch-tower. Several Currents meeting in this narrow passage, cause a great ripling of the Water : and great quantity of Water coming in, as the Winds drive, in great quantity, meeting with the shoale, is broken into Waves. The Eddies here are caused by the meeting of the different Currents by which the Waters are sometimes carried N. and sometimes S. the great danger is, lest they drive the Ship on either side. We have had Lightning for seven or eight Nights together.

7. We sailed by *Ætna*, now called *Mongibel*, where the Sea widens ten or eleven Leagues over. Now we see plainly the smoke briskly issuing out of the *Crater*, the *Limbus* of which was all black. The uppermost part of the Mountain was covered with Snow, except some streaks of Ashes, as we judge, which lye as it were in a Gutter, spread here and there.

8. We espied a *Saettia* at about 3 Leagues distance, and making up to her, found her forsaken. The Captain sent several Seamen on-board, and carried the Vessel to *Smyrna*.

Scanty Wind for several days : and the Lightning still continued.

13. We were up with *Cape Modona*, the Southermost Cape of the *Morea*, and sailed by *Coron*. The Land very high, the Hills of *Arcadia* lying Eastward from us. The Weather excessive hot at this time, as it is in *England* at *Midsummer*. We espied from our Maintop-mast five Sail of great Ships, which we supposed to be *Tripolines*, who did not think fit to come up and speak with us. But afterward we heard for certain, that they were part of the *Venetian Fleet*.

14. We lay for the most part becalmed over-against *Cape Matapan*: but in the Evening the Wind blowing fresh, we sailed between the Island of *Cerigo* and the Main Land of *Greece*; it being about three Leagues over to *Cape Angelo*.

15. We entred the Arches, and steered through the North Channel, leaving *Melo* and *Antimelo* on the Star-board quarter, at some Leagues distance.

16. Betimes in the Morning we were athwart *Negropont*, and sailed between it and *Andros*. The *Bocca* lyes *S. W.* and *N. E.*

17. We sailed by *Chios* or *Scio*, which is very mountainous toward the middle: It is about four Leagues distant from *Cape Caraboroun*, or the *Cape of the black Nose*, as the *Turkish* word signifies, which the Seamen, in their usual way of corrupting Names, call *Cape Jobbernoule*, the *Corinæum* of the Ancients, a Promontory of the famous Mountain *Mimas*, which runs along the Southern side of the *Bay of Smyrna*.

This day the *Smyrna* Fleet from *England* comes up to us very luckily, to our great Satisfaction and Joy.

18. We are now got into the *Bay of Smyrna*, and come to an Anchor without the Castle, not far from *St. Jacomos Point*, as the Seamen call it, or rather *Sangiac Point*. In the Afternoon the Consul, with several Gentlemen of the Factory, came to wait upon my Lord Ambassador, and desired his Lordship to defer his Entrance into *Smyrna* till the 20th, that he might be received with greater honour. That Evening we heard a great howling of *Jac-kalls* upon the Hills.

20. The Consul with the Nation, accompanied with his *Druggermen* and *Fanizaries* in their *Habit*, together with several *French*, *Dutch* and *Geneose* Merchants, residing in that famous Emporium, came to the Village near the Castle, who there expected us with Horses. Upon our going ashore, the *Leopard* fired 51 Guns. We made about 140 Horse; and immediately upon our setting forth, we rode for about 3 Miles together under the Hill to the *S. W.* of *Smyrna*; the places adjoining set thick with Olive, Fig, and Almond trees. Afterwards we clambered over some
rocky

rocky Ascents; but the Horses of the Country being sure footed, we were in no danger of falling. Some little way we were forced to ride on the Sea-shore, and soon after came to the Jews burying place, whose Monuments lye flat upon the ground. As soon as we entred into the City, we found the Streets full of *Greeks, Armenians, Turks* and *Jews*, whom Curiosity had drawn together to see and observe our Cavalcade; the *English* Ships, which were in the *Bay*, firing their Guns, as we past near the shore. And so after three hours riding the Ambassador was brought to the Consul's House, where Lodgings were provided for him. During our stay we met with not only kind, but very noble Entertainment from the worthy Gentlemen of the Factory.

Decemb. 8. We took our leave of *Smyrna*, being accompanied by the Consul and Merchants on board the *London Merchant*, Capt. *John Hill* Commander, the *Leopard* being ordered to go no further than *Smyrna*, it being feared in *England*, that if she had sailed up to *Constantinople*, the *Turks* might have prest her for their Service in *Candia*, which they were then besieging.

9. This Morning we weighed betimes, and sailed between *Scio* and *Mitylene*. But on the

10. We were forced back near the long Island within the Bay, being unwilling to go to *Scio*, the *Tripolines* and *Turkish* Gallies lying there. Here we lay ten days, expecting a fair Wind.

20. The Wind coming about and favouring us, we sailed a second time between *Scio* and *Mitylene*.

21. We past by *Lemnos*, and were up with the Island *Tenedos*; a fine Champaign Country, only with one Hill toward the middle of it. The Castle to the *N.E.* part of the Isle: over-against which lye three small Islands in a strait Line. Here we came to an Anchor. We saw the Ruins of *Troas* at a distance, but did not think it safe to go ashore.

22. The Wind coming about at S. we entred the *Hellepont*, which may be about two Leagues and a half over. The Castles built upon the opposite points of Land, about 11 or 12 years before, after the great Defeat given the *Turkish Armata* at the *Dardanel*s by the *Venetians*; *Cape Janizary* on the *Asian* side; which, with the *Phileum*, makes a tolerable good Bay for ordinary Vessels. The narrowest Strait of the *Hellepont* is at the two other Castles, distant about six Leagues, where it may be about $\frac{1}{2}$ of a Mile wide. These the *Christians* call the *Dardanelli*; at which are situate the Towns, *Sestus* and *Abydus*, famous in *Greek* Poësie. These Castles we saluted with our Guns and Trumpets, as we did the first: but each, whether out of Pride, or out of Covetousness, to save the *Grand Signors* Powder, return'd us no more than 2 Guns. The Wind blowing very fair, we sailed into the *Propontis*.

23. We passed by *St. Stephanos Point*, where we had a full view of the *S. E. Angle* of *Constantinople*, which being situated upon several Hills to a mighty advantage, what with the *Cypress-Trees* intermixed, and what with the gilded Spires of the *Moschs*, yielded us a very diverting and glorious Prospect. Passing by the *Seraglio Point*, which we saluted by a discharge of several Guns, in the mid Stream between it and the *Tophana*, we came to an Anchor.

26. On *St. Stephen's day* the Ambassador landed at *Galata*, (having before been visited by the Earl of *Winchelsea*, and the Merchants residing there) and was received thereby the *Chiaus Basha* and the *Vairovod* of *Galata*, the *Janizaries* and *Chiaus* attending, and was waited upon by them to his Palace: and soon after the *Kaimacam*, or Governor of *Constantinople*, sent an Officer to Complement him upon his Arrival; the *Grand Signior* being then at *Larissa* in *Thessaly*.

January 2. The Ambassadors, old and new, went over to *Constantinople*, that Morning being assigned by the

Kai-

Kaimacam to give them Audience ; the *Chiaus Basha* and other Officers attending at the Water-side to receive them; Horses being brought thither for them and their Followers to mount. This *Kaimakam Jusuph*, a little old Man, had formerly been a Page of the Chamber, and chief Falconer, and afterwards *Basha* of *Silistria*. He entertained the Ambassadors and their Company with Perfumes, Coffee, and Sherbet, and distributed about fifteen *Koftans Orrests* among them: after about an hours stay they took their leave.

Being upon the Coasts of *Greece* about *August* or *September* 69. in the Latitude of $35^{\circ} 53'$. we found by our *Azimuth* Compass, that we had Westerly variation there $5^{\circ} 22'$.

The variety of Colours of the Sea-water at several times chiefly depends upon the Wind and Weather, and the reflexion of the Light upon it. It's usual and most natural Colour is a deep Green: but in cloudy and Rainy Weather, the Surface of the Water appears blackish. On the *Goodwins* upon the Tide of Flood, the Water was white, the Waves by reason of the Shallows, meeting with opposition, and breaking into Foam, till the Flood is well advanced. Sometimes the Water is of a perfect Azure colour, as we observed for several Weeks in the *Mediterranean*. The Sun shining bright upon the Water, sometimes the upper part of the Wave appears purplish, sometimes reddish ; though in Shallows perchance it may receive this latter Tincture also from the Sands which lye under it. When the Wind has freshned, and the Ship has been under full Sail, I have observed the Waves to the head, and at the sides of the Ship, to appear with a pale kind of brightness: and at *Malaga*, at my return, going on board our Ship, which lay about half a League from the shore, at Night, the Wind then at *East*, the Boats Crew letting their Oar fall roughly into the Water, diverted us

as it were with the sight of a continued Flame, raised by their rowing ; which I ascribe rather to the Saline Particles of the Sea-water, which were then put into a violent Agitation, than to the Spawn of Fish, as some of our Company imagined.

Sailing toward the west of *Portland*, we saw several *Porpifces* playing with their heads above Water ; which I mention only, because the Seamen look upon them as forerunners of a Storm; the Wind soon after blowing very hard at *N. by E.* And afterwards arriving at *Constantinople*, the Wind blowing a stiff Gale at *North*, I observed with a pleasing kind of astonishment good part of the *Propontis*, that is, from the *Seraglio Point* toward the Islands, which lye against the *Bay of Nicomedia*, Eastward and South-East from us, as far as we could see, covered as it were with *Porpifces*, which appeared every where in great abundance. So that I am very apt to believe that *Julius Solinus* in *Chap. 12.* of his *Polykistor* is to be understood of *Porpifces*, and not of *Dolphins*, now properly so called, though that be his word, speaking of the *Bosphorus* and *Propontis*: *Hæc profunda Delphinus plurimos habent*: and soon after, *ante omnia nihil velocius habent maria*, *sic ut plerunque transvolent vela navium*. I could not hear that any *Dolphins* are caught in those Seas by the *Greeks*, whose poverty, added to the love which their Nation has for fish, and the advantage arising thence, upon the account of their solemn Fasts and Abstinences from all flesh, even to a wonderful strictness and scrupulosity, has made them excellent Fishermen: nor did I ever see any in their Fish-markets, or see one of them brought to the Ambassador's Table by the Proveditore for curiosity: though otherwise it is, an excellently well tasted fish, especially when soufed. I allow, that they will swim very swiftly, as do the *Porpifces*; and that they will follow a Ship for several Leagues together: but then they swim

swim somewhat deep in the Water, sometimes are catch'd, though not often. The Seamen have reached them with a Fisgig, a kind of barbed Iron, at the end of a Pole tyed fast to a Rope, and have made good chear with them. But this is only my Conjecture, with which I end my Journal. *Deo Servatori Laus.*

III. *A Method of Raising an infinite Multinomial to any given Power, or Extracting any given Root of the same.* By Mr. Ab. De Moivre.

TIS about two Years since, that considering Mr. *Newton's* Theorem for Raising a Binomial to any given Power, or Extracting any Root of the same; I enquired, whether what he had done for a Binomial, could not be done for an infinite Multinomial. I soon found the thing was possible, and effected it, as you may see in the following Paper; I design in a little time to shew the Uses it may be applied to: In the mean while, those that are already vers'd in the Doctrine of Infinite Series, and have seen what Applications Mr. *Newton* has made of his Theorem, may of themselves derive several Uses from this.

I suppose that the Infinite Number Multinomial is $ax + bx^2 + cx^3 + dx^4 + ex^5$ &c. m is the Index of the Power, to which this Multinomial ought to be Rais'd, or if you will, 'tis the Index of the Root which is to be Extracted: I say that this Power or Root of the Multinomial, is such a Series as I have express'd.

For the Understanding of it, it is only necessary to consider all the Terms by which the same Power of x is Multiplied; in order thereto I distinguish two things in each of these Terms; 1^o The Product of certain Powers